J.P.Morgan

J.P. MORGAN (SUISSE) SA

Risk Disclosure Booklet

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SECTION 1 - INTRODUCTION

The new Financial Services Act ("**FinSA**"), in force from 1 January 2020, contains code of conduct provisions with which financial service providers must comply vis-à-vis their clients. It defines the requirements for providing financial services in an honest, diligent and transparent manner and sets out how financial instruments are to be produced and offered. It also makes provision for prospectus duties and requires an easily understandable key information document about the general risks associated with financial instruments.

The financial markets present many different risks of which investors should be aware prior to investing. It is the policy of J.P. Morgan (Suisse) SA (the "**Bank**" or "**J.P. Morgan**" or "**we**") to draw the attention of its client(s) (the "**Client**" or "**Investor**" or "**you**") to the risk factors which may make certain investments more risky and/or more complex than standard investments. This Risk Disclosure Booklet forms part of the J.P. Morgan Terms and Conditions Applicable to Clients (the "**Private Client Terms**").

In drawing up this Disclosure of Risks Inherent in Certain Investments (the "Disclosure of Risks" or "Risk Disclosure Booklet"), the Bank has assumed that the Client is aware of the usual risks attached to the purchase, sale and holding of securities, in particular solvency, price, issuer, counterparty, liquidity and foreign exchange risks in respect of equities, fixed income instruments and investment fund units.

The main purpose of this Disclosure of Risks is to provide detailed information on investment risks, with the exception of specific risks linked to individual transactions. However, it does not deal specifically with general economic risks (notably development of new markets, interest rate fluctuations, etc.), tax aspects, issues relating to transaction costs, country risks (economic sanctions imposed by certain States, restrictions on the free circulation of capital and currencies, etc.) or market risks. This document, to which the Client is recommended to pay careful attention, sets out the characteristics of some financial instruments, in particular of the most risky and/or complex investments, such as derivatives, hedge funds, private equity, investments in emerging markets, short selling and structured products.

FINSA defines the following as financial instruments:

1. Equity securities
   a. Securities in the form of shares, including share-like securities allowing for participation or voting rights, such as participation or dividend rights certificates.
   b. Securities that, on conversion or execution of the rights embedded in them, allow for the acquisition of equity securities as soon as they are registered for conversion.
2. Debt instruments: securities that are not equity securities.
3. Units of collective investment schemes in accordance with the Collective Investment Schemes Act of 23 June 2006 ("**CISA**").
4. Structured products, i.e. capital-protected products, capped return products and certificates.
5. Derivatives in accordance with the Financial Market Infrastructure Act of 19 June 2015 ("**FMIA**").
6. Deposits with a redemption value or interest that depends on risks or prices, excluding those with interest linked to an interest rate index.
7. Bonds: shares of an overall loan subject to uniform conditions.

As regards transactions executed on a stock exchange or on another regulated market (for example EUREX), the Client is requested to also refer to the information published by this exchange or other regulated market, especially in relation to the characteristics of, and risks attached to, transactions carried out on futures or listed options.

The Client notes that the entry into derivative transactions and/or the investment in financial instruments that are not listed on an exchange or other organised market may be subject to regulatory restrictions and even disclosure requirements. The Client should take into account these possible restrictions and exceptions to the confidentiality of his/her data prior to entering into such transactions.

The Client should particularly take counterparty risk into consideration, including (without limitation) each time when he/she enters into transactions over-the-counter ("**OTC**").

Where the Client is a self-directed investor, we will provide you, if applicable, with specific product documentation including term sheets, offering memoranda, prospectuses, key investor information documents and subscription documentation which will contain more detailed disclosure about the products in which the Client is investing. While the Client should always read the specific product documentation and obtain appropriate advice before signing it we would also recommend that it familiarises itself with the content of this Risk Disclosure Booklet.

Where the Client is a discretionary investment management client, the Bank will not generally provide the Client with any documentation prior to our making an investment on its behalf. In order to fulfil the Client's asset allocation, however, the Client will have authorised the Bank to invest in a number of the products that are mentioned in this Risk Disclosure Booklet.

Both self-directed and discretionary investment management clients may obtain product specific information of the type referred to above upon request from their J.P. Morgan Private Bank investor specialist.

Where J.P. Morgan acts as the Client's investment manager, the Bank may only invest in products that it believes are suitable for you based on the information you have provided the Bank and our understanding of your situation. Similarly, where the Bank acts as your investment adviser, it may only make investment recommendations which is believed as suitable for the Client. A key element of the Bank's duty to ensure suitability is that the Bank is satisfied that the Client understands the principal risks associated with each product that the Bank invests in on the Client's behalf or that the Bank recommends to you.

Please note that certain investments which are described in this Risk Disclosure Booklet are not accepted among the authorized investments (i.e. "units") under regulations applicable to life insurance companies with respect to life insurance or capitalization contracts they distribute, or may only be authorized within certain limits. This should be considered by the life insurance company in advance of any investments.

Section 2 describes some general risks and costs of investing. Section 3 describes in more detail certain specific products and Section 4 some further risks.

The Bank reserves the right, where necessary and/or appropriate, to require the Client expressly to acknowledge, by means of a special written declaration, the risks and conditions relating to certain investments and investment services proposed by the Bank. Similarly, the Client may, by means of a written declaration, expressly renounce the right to receive information relating to such investments or investment services.

The Client is fully acquainted with this Disclosure of Risks and acknowledges that it is not exhaustive and that it does not include or analyse all the risks and other aspects of the investment transactions which he/she may carry out. The Client does, however, assure the Bank that he/she is capable of assessing and understanding (either personally or with the assistance of independent legal, tax and/or financial advisers) the procedures, conditions and risks involved in such transactions.

The Client declares that he/she fully accepts the risks involved in such investments he/she carries out and that his/her financial situation allows him/her to withstand any losses which may arise therefrom and to reimburse the Bank for any damages which the latter may incur in executing the instructions of the Client relating thereto.

The Client notes that the Bank is willing to provide him/her with the opportunity of receiving all such further information or explanations as may be required concerning this Disclosure of Risks.

By instructing the Bank to carry out any one of the investments described below or by authorising it to carry out such investments based on a discretionary investment management mandate, the Client is deemed to have understood, accepted and assumed all the risks described in this document and any consequences thereof whatsoever.

The past performance of a given investment does not in any way guarantee its future performance.

From time to time the Bank may update the Risk Disclosure Booklet without notice, unless there are material changes. The latest version of the Risk Disclosure Booklet can be accessed on the “important information website” through the following link: https://privatebank.jpmorgan.com/gl/en/disclosures/emea-important-information and/or provided to the Client upon request.

SECTION 2 - KEY RISKS AND COSTS OF INVESTING

1. KEY RISKS OF INVESTING

All financial products carry a certain degree of risk and even low risk investment strategies contain an element of uncertainty. The price or value of an investment will depend on movements in the financial markets outside of anyone's control. Past performance is no indicator of future performance.

The nature and types of investment risks will depend on various matters, including the type of investment being made, how the investment has been created, structured or drafted, the needs and objectives of particular investors, the manner in which an investment is made or offered, sold or traded, the location or domicile of the issuer, the diversification and concentration in a portfolio (e.g. the amount invested in any one currency, security, country or issuer), the complexity of the transaction and the use of borrowing or leverage. Different risks may occur simultaneously and/or may compound each other resulting in an unpredictable effect on the value of the investments. The risks identified in this Section 2 are common to many of the investments that are offered through J.P. Morgan. In some cases in Section 3, we elaborate on these risks when referring to a particular investment but you should always consider the following general risks when making any investment decision or contemplating any form of allocation to such investments:

Credit risk – the risk that the issuer or guarantor of a product such as a share or a bond is not able – usually for financial reasons – to repay principal and/or interest in relation to the product or to meet its financial obligations in relation to the product, with resulting loss to the investor.

Market risk – the risk that the current value of a product falls as a result of movements in market prices due, in particular, to changes in interest rates, foreign exchange rates, and equity and commodity prices so that the investor may not get back the money invested or may not make the returns anticipated.

Liquidity risk – the liquidity of an investment is directly affected by the supply and demand for that investment and also indirectly by other factors, including market disruptions or issues affecting the infrastructure on which the investment is traded such as a securities settlement system. Therefore under certain conditions and at certain times, there is a risk that when an investor chooses to sell a product, there may be no market for it and the investor may be unable to sell it at the desired time or price. In addition, unless the contract terms so provide, the issuer or counterparty to a product may not be obliged to buy it back or to redeem it such that the investor may not be able to redeem or sell back the product at all or may only be able to do so at disadvantageous terms.

Inflation risk – the risk that returns in relation to a product may not keep pace with inflation. A high rate of inflation may reduce the value of future income or redemption amounts in relation to the product.

Currency/foreign exchange risk – the risk that currency exchange rate fluctuations may reduce gains or increase losses on foreign investments. Adverse changes in exchange rates may erode or reverse any gains produced by foreign currency denominated investments and may widen any losses. This may also affect the ability of an issuer to repay a debt denominated in a currency other than reference currency of the security, thereby increasing credit risk. Where securities are denominated in a currency other than the investor's reference currency, changes in rates of exchange may have an adverse effect on the value of the investment in the reference currency.

Risk of borrowing to fund investments – investors should always be aware of the risks associated with borrowing to increase their exposure to a particular investment. Borrowing can increase profits if the investment that is purchased using the loan increases in value. However, if the investment decreases in value, the losses caused to the investor as a result of the greater exposure to the investment, the costs of the loan and the obligation to provide more collateral and/or to repay the loan at a time which may be most disadvantageous to the borrower, can increase losses substantially.

Tax risk – before an investor invests, the investor should note the tax consequences of such investment and take tax advice. Many investments or their issuers do not give any assurance to investors that they will result in, or be managed or operated in a way that will ensure the optimal tax outcome for a particular investor. Investments may have adverse tax consequences for an investor. The information that an issuer provides to an investor may not be sufficient to enable the investor to complete the investor's tax return.

Information risk – the information that is available to investors when making investment decisions in certain investments can vary in quality and accuracy depending on a number of factors, for example, the jurisdiction of the issuer of the investment, the nature of the investment and the obligations applicable to the issuer. For example, bonds or shares issued by emerging market issuers may suffer from such deficiencies.

Emerging markets risk – the term "emerging market" means a securities market in a country which is generally characterised by political instability, precarious financial markets, a potentially weak economy, a potentially challenging legal/regulatory environment and uncertainty concerning that country's economic development. Investments made in emerging markets generally entail specific risks which are not encountered in developed markets. Bonds issued by emerging markets issuers may pay a higher return but this may not compensate fully for the additional risks involved. See also "16. Emerging Markets" below.

Interest rate risk – interest rates can rise as well as fall. The value of fixed income securities generally moves in the opposite direction of interest rates (inversely) and, therefore, the value decreases when interest rates rise and increases when interest rates fall. This is because a rising interest rate makes the value of the future interest payments on the bond fall and new issues of bonds must raise their interest rates so that older issues with lower yields become less popular and their price falls. There are additional interest rate risks in relation to floating rate investments and fixed rate investments. Interest on floating rate investments cannot be anticipated. Due to varying interest income, investors are not able to determine a definite yield of floating rate instruments at the time of purchase and therefore investors cannot compare the return on the investment with investments having a longer fixed interest period. If the terms and conditions of the relevant instrument provide for frequent interest payment dates, investors are exposed to the reinvestment risk if the market interest rates decline as investors may only reinvest interest income paid to them at the relevant lower interest rate then prevailing.

Counterparty risk – counterparty risk is the risk that the counterparty may, for a variety of reasons, refuse or fail to meet its contractual obligations to the investor in a product with resulting loss to the investor. The insolvency or default of a counterparty may also lead to positions being liquidated or closed out without an investor's consent or investments not being returned to the investor.

Regulatory/legal/structural risk – regulatory or legal actions or changes may alter the profitability of an investment during its life and could even result in an investment becoming illegal. In some cases the laws affecting the investment may become unclear, or may be subject to inconsistent or arbitrary application or interpretation or may be altered with retroactive effect. Investors may not be guaranteed a satisfactory remedy in a local court if there is a legal dispute in particular regarding ownership of the investment and may not be able to obtain or enforce a legal judgment. In all cases, the legal terms and conditions of a product may contain provisions that may operate against the interests of particular investors. For example, they may permit early redemption, termination or cancellation of principal or interest at a time unfavourable to the investor or they may give wide discretion to the issuer or another party to interpret or alter the terms of the investment.

Bail-in and write-off risk of financial instruments subject to a restructuring regime – investors should note that certain claims (including investor claims under certain financial instruments, further details of some of which are set out in Section 3), to the extent not privileged, unsecured or not subject to set-off, may be subject to the restructuring regime as set out in particular in the Ordinance of the Swiss Financial Market Supervisory Authority on the Insolvency of Banks and Securities Firms, or such other resolution regime as may be applicable outside of Switzerland: e.g. equity instruments, bonds and fixed income investments, certificates of deposit, structured products, options, caps, floors, forward contracts, swaps and exchange traded commodities. The impact on investors, in a restructuring scenario, will depend crucially on the rank of the liability in the restructuring creditor hierarchy, which may be affected by depositor preference. Investors should be aware that in the event of restructuring, **subject to certain conditions and safeguards**: (i) any outstanding amount owed to the investor under the financial instrument may be reduced to zero or, where relevant, the financial instrument or claim (as applicable) may be converted into ordinary shares or other instruments of ownership for the purpose of stabilisation and loss absorption; (ii) a transfer of assets to a bridge bank, **separate asset management vehicle** or in a sale of **business to an existing third party** may limit the capacity of the issuing firm or counterparty, as the case may be, to meet repayment obligations; (iii) where relevant, the exercise of early termination rights under these instruments may be altered and the payments may be suspended for a certain period

Investors should also note that: (a) where applicable, the liquidity of the secondary market in any unsecured debt instruments may be sensitive to changes in financial markets; (b) where applicable, existing liquidity arrangements (for example, repurchase agreements by the issuing institution) might not protect clients from having to sell these instruments at a substantial discount below their principal amount, in case of financial distress of the issuing firm; and (c) investors may have a right to claim compensation if the treatment they receive in a restructuring scenario is less favourable than the treatment they would have received under normal insolvency proceedings. This assessment must be based on an independent valuation of the issuing firm or counterparty, as the case may be. Compensation payments, if any, may be made considerably later than contractual payment dates (in the same way that there may be a delay in recovering value in the event of an insolvency).

RISK ASSOCIATED WITH CHANGES TO INTERBANK OFFERED RATES AND OTHER BENCHMARK REFORMS

As a counterparty of the Bank under a derivative transaction, a borrower under a credit granted by the Bank and/or an investor in financial instruments, the Client is exposed to the risk that such a transaction relies on a "benchmark" which changes or is affected by benchmark reforms. Examples of investments using a benchmark include, but are not limited to, currency swaps, interest rate swaps and exchange-traded funds that track underlying indices.

Certain interest rate benchmarks are, or may in the future become, subject to ongoing international, national and other regulatory guidance, reform and proposals for reform.

Interest rate benchmarks that are currently or have recently been the subject of proposals for reform include U.S. Dollar LIBOR, British Pound Sterling LIBOR, Swiss Franc LIBOR, Japanese Yen LIBOR, Euro LIBOR (the "LIBOR Rates"), Japanese Yen TIBOR, EURIBOR, Euro Yen TIBOR, Canadian Dollar CDOR, Hong Kong Dollar HIBOR and Australian Dollar BBSW (together with the LIBOR Rates, the "IBORS"). At the initiative of regulators, markets have been transitioning away from IBORs and moving to alternative reference interest rates.

Any of the reforms and related transition actions, and/or any delay or uncertainty regarding them, or any failure of an alternative reference rate to be developed or gain market acceptance, could adversely affect IBOR-based obligations and investments and their economics, including the price, value or liquidity of IBOR-based obligations and investments, their usefulness for the intended purpose, the timing or amount of payments or deliveries and, if applicable, the likelihood that an investor will be able to exercise any option rights tied to IBOR levels.

The base rates for transactions that have been entered into by the Bank with the Client and used IBORs as benchmarks for different currencies (such as but not only Swiss Franc, US Dollar, and British Pound) are set in accordance with the Base Rate Sheet ("Base Rate Sheet"), which is available through the Client's relationship manager or online at www.jpmpb.com if the Client

has access to that website, in each case as updated by the Bank from time to time.

If the Bank determines that, whether as a result of actual or expected change to applicable law or regulation or relevant market practice, a benchmark rate designated in the Base Rate Sheet has ceased or is likely to cease to be available, is or must be discontinued, or is considered as being no longer representative, appropriate, lawful, recommended or required for the purposes of calculating interest under the relevant transaction, the Bank will make available an updated Base Rate Sheet to the Client, and will be entitled, by written notice to the Client, to replace the relevant base rate, permanently or on a temporary basis, with a new rate that is the sum of (i) an alternate benchmark rate selected by the Bank, and (ii) a spread adjustment (which may be a positive, negative, or zero value) selected by the Bank.

Without prejudice to the terms specifically governing the relevant transaction, the Bank will be entitled to make any technical, administrative or operational changes, as well as other amendments to the terms of the transaction, considered by the Bank to be necessary or advisable to give effect to the rate replacement. Such changes and amendments may include, without limitation, changes to timing and frequency of the determination of rates, the interest payment dates and the calculation method for any accrued interest amounts, and the related definitions. The replacement shall become effective on the date specified by the Bank in its related notice to the Client.

While the matters discussed in this section are focused on IBORS, they may be of equal relevance or applicability to reform efforts that may be undertaken in the future with respect to other interest rate benchmarks.

The Client should consult his/her/its own independent professional advisers and/or conduct his/her/its own independent investigation and analysis on the potential risks imposed by the reforms and the potential impact on the Client's transactions.

Operational risk – the risk that the systems and controls essential to the investment may break down or malfunction, for example, IT systems, can impact all investments. Businesses may be run incompetently or poorly with consequent risk for an investor.

Clearing house protections/settlement risk – On many exchanges, the performance of a transaction may be "guaranteed" by the exchange or clearing house. However this guarantee is usually in favour of the exchange or clearing house member and cannot be enforced by the client who will therefore be subject to the credit and insolvency risk of the firm through whom the transaction was executed. Settlement risk is the risk that a counterparty does not deliver the security (or its value) in accordance with the agreed terms after the other counterparty has already fulfilled its part of the agreement to deliver. Settlement risk increases where different legs of the transaction settle in different time zones in different settlement systems.

Investment manager risk – when investing in a fund, the investor is exposed to the skill and expertise of the investment manager in ensuring that the investment objectives of the fund are met.

Suspensions of trading – each stock or commodities exchange may in certain circumstances be prompted to suspend or limit trading in all securities or commodities which it lists. Such a suspension would render it impossible for an investor to liquidate positions and would accordingly expose the investor to losses and delays in their ability to obtain reimbursement upon demand.

2. KEY COSTS OF INVESTING

Making any investment will also involve costs and charges which will vary depending on the nature of the service being offered and the product in which an investor is investing. These costs can be material and may have a negative impact on the returns that an investor expects to realise from the investment.

Where you invest through the Bank, as set out in General Term 10 of the Private Client Terms, you will be provided with a fee schedule which sets out our current transaction and other costs. This also contains a schedule which shows the basis on which the Bank receives from and/or shares remuneration with the providers of products which you have purchased and/or sold.

In relation to some investments that you purchase such as equities and bonds, the Bank charges one-off transaction fees, while in others there are ongoing fees which are charged throughout the term of the product. In addition, when you purchase a product such as a fund (described below), there are ongoing fees deducted by the investment manager of the fund and the providers of services and counterparties to the fund which will reduce the value of your investment. You should consider carefully the costs of any investment and should you require any further information you should contact your J.P. Morgan representative.

3. J.P. MORGAN'S CONFLICTS OF INTEREST

You should note that we are entitled to enter into any transaction with you or on your behalf or to provide any service to you notwithstanding that we and/or any Affiliate have or may have a material interest in the transaction or resulting transaction or a relationship that gives rise to a conflict of interest. However, in any such case, we may in our absolute discretion, decline to act.

Your attention is drawn to our Conflicts of Interest Policy that is summarised in the Private Client Terms. Further information on our conflicts of interest policy is available upon request. Such conflicts of interest may include but are not limited to where:

(a) as your discretionary investment manager, we may invest or, as your adviser, recommend to you, a product, such as a Collective Investment Scheme, structured product, separately managed account, hedge fund or private equity fund issued or managed by us or an Affiliate, such as JPMorgan Asset Management (Europe) S.à.r.l.;
(b) we obtain services, including trade execution and trade clearing, from one of our Affiliates;
(c) we receive payment as a result of a product being purchased on your behalf or by you; and
(d) we or our Affiliates receive payment for providing services (including where we or an Affiliate act as adviser, administrator, distributor, placement agent, custodian or other service provider) with respect to products purchased on your behalf or by you.

Also, we shall have full discretion to structure an investment through an intermediate entity such as a conduit vehicle or feeder fund (which may be an Affiliate). In addition, you understand and acknowledge that:

(a) our proprietary activities or portfolio strategies and those of our Affiliates or the activities or strategies used by accounts managed by our Affiliates for other client accounts, are carried out without reference to positions held directly or indirectly by you. As a result, our Affiliates may compete with your account for appropriate investment opportunities;
(b) we and/or one of our Affiliates, may provide investment management and advisory services to other clients, including multi-manager funds and managed accounts that follow investment programs substantially similar to the products or funds in your account. As a result, where a limited investment opportunity would be appropriate for you and also for one or more of our other clients, we will be required to choose among you and such other clients in allocating such opportunity or to allocate less of such opportunity to you than we would allocate if we did not provide investment management services to other clients. In addition, we or such Affiliate may determine that an investment opportunity is appropriate for a particular client or an Affiliate but not for you. Situations may arise in which other client accounts managed by an Affiliate may have made investments that would have been suitable for you but, for various reasons, were not pursued by or available to you. We attempt to allocate limited investment opportunities among our clients in a manner we believe to be reasonable and equitable;
(c) where we act as your discretionary investment manager, we may invest the entirety of your asset allocation to products and funds that are issued or managed by J.P. Morgan; and
(d) where we are authorised to enter into foreign exchange hedging in relation to all or part of your investment management account, we will do so as principal with you. We may hedge foreign exchange transactions by way of a back-to-back principal transaction with one of our Affiliates (e.g. J.P. Morgan Chase Bank, N.A.) at a price determined by such Affiliate. Hedging transactions are executed with you at a price that reflects remuneration received by us and our Affiliate. This remuneration is in addition to management fees charged to your account.

We have established and maintain a number of procedures, processes and controls for managing actual and potential conflicts that arise in the course of our business.

Where these arrangements are not sufficient to ensure, with reasonable confidence, that risk of damage to the interests of one or more clients will be prevented, we will be required to clearly explain to the client(s) concerned the general nature and/or sources of the conflict of interest and the steps we have taken to mitigate these risks before undertaking business with or for the client(s) and ask the client(s) consent to us acting notwithstanding such conflict of interest or, if we believe there is no other practicable way of preventing damage to the interests of one or more clients, we may decline to act.

SECTION 3 - KEY RISKS OF TYPES OF INVESTMENTS

1. EQUITY OR SHARE INVESTMENTS AND OTHER TYPES OF EQUITY INSTRUMENTS

A. WHAT IS AN EQUITY?

Equities are ownership interests representing a share in property, usually a company. Ordinary shares or preferred securities, are equity securities issued by corporate or non-corporate (for example, trusts, including real estate investment trusts ("REITs")) issuers. Preference shares or preferred securities, are issued by limited liability companies as the primary means of raising risk capital. The issuer has no obligation to repay the original cost of the share to the shareholder. Where an issuer is wound up (i.e. ceases to exist) holders of equities may lose some if not all their value. Most equities are traded on equity markets in which case they are described as listed.

Some equities, known as preference shares, may have preferential rights to other shares in relation to payments of dividends or repayment on insolvency. However, the terms of preference shares often include provisions which mean the issuer can decide not to pay or to delay payment of such dividends.

A depositary receipt (ADRs, GDRs etc.) is a negotiable certificate, typically issued by a bank, which represents a specific number of shares in a company, traded on a stock exchange which is local or overseas to the issuer of the receipt.

Shares in a company may be offered by way of a prospectus or information memorandum. Information about the company may also be available by way of published accounts and from other sources.

B. HOW DOES INVESTING IN EQUITIES REWARD INVESTORS?

Equities can reward investors with the potential of higher returns in the form of either capital appreciation of higher incomes through dividend payments in comparison to leaving the investments in cash deposits or money market funds. The increased potential return increases the level of risk to capital loss. Investing in equities usually involves brokerage costs.

C. WHAT ARE THE RISKS OF INVESTING IN EQUITIES?

Investing in equities carries potential exposure to all the major risk types referred to in Section 2. For example:

Market risk – share prices can fluctuate suddenly and sometimes very sharply. Shares also tend to fall in value when the economy is deteriorating as investors recognise that profits will be lower. Not all shares carry equal risk: the level of risk depends on the company in which the investor is buying shares. The value of the shares may increase as company profits increase or as a result of market expectations, but the opposite can also be true.

Credit risk – if a company becomes insolvent, its equities have the most junior status, meaning that equities are repaid only after all other debts of the company have been repaid. This can result in a potential severe reduction in, or total loss of, their value.

Information risk – the information that is available to investors when making investment decisions in equities can also vary in quality depending on the jurisdiction of the issuer and the rules which apply to such information as noted above.

Investing in equities may also expose an investor to inflation and currency risk. Further, the investor will be exposed to the specific risks of the industry in which the company operates, for example, a computer chip manufacturer might have exposure to the availability and price of certain metals.

Holders of depositary receipts are also subject to particular risks: the deposit agreement for the investment sets out the responsibilities of the depositary, the underlying share issuer and the holder of the depositary receipt, which may be different from the rights of the direct holders of the underlying shares. For example, the underlying shareholders may be entitled to receive dividends which are not passed onto the holders of the depositary receipts. Any such differences may have an adverse effect of the value of the depositary receipt.

SPECIFIC RISKS OF CERTAIN TYPES OF EQUITIES

In addition to the general risks associated with an investment in any type of equity, investors may be exposed to certain additional risks depending on the type of equity (e.g. equities with special features). Some of these specific risks are set out below.

RISKS RELATING TO EQUITIES WITH SPECIAL FEATURES

Preferred securities (preference shares) - Preferred securities (preference shares) have certain features that are characteristic of debt securities and certain features that are characteristic of common equity securities. For instance, like debt securities, preferred securities are typically issued with a fixed notional value (often referred to as the "liquidation preference amount") and pay dividends or distributions periodically at a fixed or floating percentage of their notional value. Preferred securities also may (or may not) have credit ratings, but for reasons discussed below, the credit ratings of the preferred securities of an issuer are typically lower than those of its debt securities. For a more detailed discussion of the key risks of investing in debt securities, please refer to Section 3 2C. Like common equity securities, preferred securities generally are perpetual and do not have a maturity date, and can remain outstanding unless redeemed or repurchased by the issuer. Furthermore, the dividends or distributions payable on a preferred security must be declared by the issuer's board of directors before the payments can be made. As a consequence, if the board of directors of an issuer does not declare dividends or distributions for the relevant dividend or distribution periods, the issuer will not be obligated to pay dividends or distributions on the relevant payment date, and such dividends or distributions in certain instances may be forfeited.

Holders of an issuer's preferred securities typically do not have voting rights, unless the issuer is in default on its payments on the preferred securities, in which case holders of the preferred securities may be given certain voting rights until the time the issuer is no longer in such default.

Preferred securities occupy a place in an issuer's priority of payments that is between debt securities and common equity securities. Holders of an issuer's debt securities enjoy priority over holders of the issuer's preferred securities to receive payments, and if an issuer is in default on its debt securities, it will not be permitted to make payments on its preferred securities. Because of their lower priority in receiving

payments, preferred securities are typically rated lower than comparable debt securities of the same issuer and pay dividends or distributions at a higher rate than the coupon rates of the comparable debt securities. Preferred securities are equity interests in an issuer and do not constitute indebtedness. This means that preferred securities of an issuer will rank junior to all existing and future indebtedness of the issuer and to other non-equity claims on the issuer with respect to assets available to satisfy claims on the issuer, including claims in liquidation. Moreover, some issuers may have existing indebtedness that restricts payment of dividends or distributions on their preferred securities in certain circumstances.

Preferred securities can be subject to transfer restrictions and, in limited situations, might not be listed on any securities exchange or have any established trading market. Therefore, investors in preferred securities might not be able to sell their preferred securities at their desired time or price, and should be willing to hold them as long term investments.

Preferred securities are often callable, subordinated, and/or have variable or deferral interest payment terms, the investors should also consider reinvestment risk and/or a lower priority of claims, as the case may be.

2. BONDS AND FIXED INCOME INVESTMENTS

A. WHAT IS A BOND?

A bond is basically a debt instrument issued by a government, company or other corporate entity (an "issuer") and will usually have a maturity date of more than 12 months. A bond enables the issuer to raise money in a low cost, tax efficient way without diluting the interest of shareholders by seeking to raise capital through a share offering. Bonds will typically be issued at close to what is known as 'par' or face value. The bond issuer usually undertakes to pay interest (the ''coupon'') to the investor which will generally be a fixed amount and is paid annually or semi annually. At the maturity date, the issuer will repay the capital invested typically at par or face value regardless of how the market price has fluctuated before maturity. Bonds can be bought and sold until maturity and values can fluctuate depending on supply and demand and other factors such as interest rates.

Bonds are often referred to as "debt instruments" or "fixed income investments", since the amount of the interest payments is known in advance unless the issuer defaults (although some fixed income investments pay a floating rate of interest). Another type of fixed income investment is gilts; these are similar to corporate bonds but are issued by the UK government rather than companies.

Bonds can be either secured or unsecured and either senior or subordinated. Secured debt means that collateral has been pledged as security against the issuer's failure to pay, while investors in senior debt instruments are legally entitled to be paid ahead of investors in subordinated (i.e. non-senior) debt instruments issued by the same company. Senior secured debt instruments therefore carry a lower risk of loss than other debt instruments issued by the same company.

Issuers that want to raise money from investors in the bond market are ranked according to how potential investors judge their ability to continue to make the income and capital repayments when they fall due. This is what is referred to as the 'credit rating'. Independent rating agencies are responsible for researching companies and supplying 'grades' or 'ratings' to companies' debt (bond issues). The most readily recognised rating agencies are Moody's, Standard & Poor's and Fitch Ratings. Long-term credit ratings for Moody's, Standard & Poor's and Fitch Ratings respectively range from Aaa / AAA / AAA (highest quality) to C / D / D (in default). As rating categories and rating methodologies differ between the rating agencies, you should familiarise yourself with the relevant rating agency's current publicly available rating categories and rating methodology which will be available from the relevant rating agency's website:

Moody's: http://www.moodys.com/
Standard & Poor's:
http://www.standardandpoors.com/
Fitch Ratings: http://www.fitchratings.com/

Please contact your J.P. Morgan representative if you have difficulty in accessing these materials or would like further explanation of the rating categories or rating methodologies.

Ratings given to an issuer or a bond may depend, among other things, on its creditworthiness, its ability to continue to make payments to its bond holders in the future and what protection the bond holder has, should the company face financial difficulties.

There are two main subdivisions of bonds depending on their 'credit rating', which indicates to investors the level of risk associated with the company issuing the bond.

Investment grade bonds – with investment grade bonds it is expected that the risk of non-payment or default is low taking into account the financial position of the issuer. As a result, the income or coupons offered are usually lower than those from sub- or non-investment grade bonds.

Non-investment grade bonds – non-investment grade bonds, also known as High Yield bonds, are higher risk investments. The issuer may be less financially stable and the chance that the issuer will not be able to repay the amount owed to investors is expected to be higher than that of investment grade bonds. See also "16. Emerging Markets" below.

Convertible and warrants bonds – A convertible bond is a fixed-income security that normally bears interest at an agreed nominal rate with no adjustment for inflation. It gives the holder the right to convert it within a predefined period and at a predefined ratio into an equity instrument from the same issuer, e.g. a share. If this conversion right is not exercised, the bond falls due for repayment at the end of its term. Convertible bonds are sometimes used as a means of exchanging shares between the shareholders of two companies that are merging, in which case they are known as exchangeable bonds. Instead of a conversion right, warrant bonds comprise an option, subject to certain conditions, to buy equity instruments in addition to the bond. Convertible bonds that must be converted into equity instruments at a specific time or under specific conditions are called mandatory convertible bonds. Mandatory convertible bonds issued by a bank are called contingent convertible bonds (CoCos).

Hybrid Bonds – Hybrid bonds are debt instruments with certain equity-like elements, such as no fixed term, the possibility of postponing or cancelling periodic interest payments or – like equity securities – lower priority if the issuer is liquidated. Banks and insurers tend to qualify hybrid bonds as regulatory capital, while rating agencies can sometimes attribute them to the issuer's equity, depending on their structure. This makes them attractive for industrial companies as well.

Bonds are offered by way of a prospectus or information memorandum which can be reviewed by investors.

B. HOW DOES INVESTING IN BONDS REWARD INVESTORS?

Investors receive a return on their investment in bonds in two ways: income and capital. The income received from the issuer is usually the major part of the overall return to the investor. However, as not all issuers have the same financial strength, the weaker issuers may pay more than the stronger in order to compensate investors for the extra risk of non-payment. Similarly, issuers with lower financial strength are more at risk of not being able to repay investors when the bond matures. These companies also have to pay investors more when they borrow to compensate for this extra risk. A capital gain is normally only made where bonds are sold in the secondary market or redeemed at a higher price than at which they were purchased.

C. WHAT ARE THE RISKS OF INVESTING IN FIXED INCOME INVESTMENTS SUCH AS BONDS?

Although fixed income investments such as bonds are generally regarded as conservative investments with less risk of capital loss than equities, an investor is also potentially exposed to all of the major risk types referred to in Section 2. For example:

Liquidity risk – if an investor seeks to sell a fixed income investment such as a bond prior to its maturity date, there may be no market for the bond and the investor may be unable to sell the bond at the desired time or price or at all. There may be a substantial difference between the secondary market bid (or purchase) and offer (or sale) prices quoted by a market maker for a fixed income investment.

Credit spread risk – the risk of financial loss resulting from a change in the credit spread, e.g. the additional yield that a bond issued by for example an A rated issuer must produce over a better rated bond. The value of fixed income investments generally moves in the opposite direction of credit spreads, in particular where such investments pay a fixed rather than floating rate of interest. Values decrease when credit spreads widen and increase when credit spreads tighten.

Interest rate risk – the value of fixed income investments such as bonds (in particular where such investments pay a fixed rather than a floating rate of interest) generally moves in the opposite direction of interest rates (inversely) and, therefore, the value decreases when interest rates rise and increases when interest rates fall. This is because a rising interest rate makes the value of the future interest payments on the bond lower and new issues of bonds must raise their interest rates so that older issues with lower yields become less popular and their price falls.

Early repayment risk – asset-backed securities, which are backed by a pool of assets such as mortgages, automobile loans or credit card receivables, may be subject to early repayment of principal corresponding to early repayment of the underlying assets, in particular where interest rates have fallen and such assets can be refinanced at a lower interest rate. Callable fixed-rate securities may also be subject to an increased risk of early repayment in such circumstances because the issuer of such securities can issue new securities at a lower interest rate. Early repayment will result in a reduction in value of the relevant securities.

Inflation risk – the returns may not keep pace with inflation because the relationship between inflation and corporate bond prices is inverted; a high rate of inflation will reduce the value of future income or redemption amounts under the bond.

Credit risk – the issuer or guarantor of the bond may have financial difficulties or may become insolvent thereby being unable to meet interest or capital repayments.

Regulatory/legal/structural risk – the bond may contain provisions for calling bondholder meetings to consider matters affecting the interests of the bondholders generally and may permit defined majorities to bind all holders, including holders who did not attend and vote at the relevant meetings and holders who voted in a manner contrary to the majority. Amendments may be made to the terms and conditions of the bonds without the consent of all the bondholders.

Structural subordination risk – where bonds are issued by, or payment on them is guaranteed by, a parent or holding company, payments on the bonds may depend on receipt of dividends or cash loans from subsidiaries.
The relevant issuer or guarantor's ability to receive dividends and loans from its subsidiaries will be subject to applicable local laws and other restrictions. These restrictions could include, among other things, regulatory and contractual requirements and applicable tax laws.

The holder of a bond issued by a parent or holding company may not have any control over whether or not subsidiaries of that company incur significant further indebtedness. In the winding-up of such a subsidiary the claims of the creditors of the subsidiary would normally be required to be met before any surplus amounts are paid up to its parent company and on to the parent company's creditors (including bondholders).

Contractual or statutory subordination risk – the claims of bondholders may be contractually subordinated or subordinated by legislation to the claims of holders of other obligations of the issuer.

Subordinated bonds are typically unsecured obligations i.e. the holder will have no claim over specific assets of the issuer. Further, in the event of the winding-up of the relevant issuer, it is unlikely that payment of principal or interest will be made until payments have been made to more senior (less subordinated) creditors.

Bonds (including "senior" bonds) issued by banks are typically subordinated to the claims of certain depositors (deposit accountholders) of the bank. Bonds (including "senior" bonds) issued by insurance companies are typically subordinated to the claims of policyholders and certain other beneficiaries of the relevant insurer.

Regulators may also have greater powers, or a greater willingness, to use their statutory powers to "bail-in" (i.e. write off or convert into equity) subordinated bank issuer or insurance issuer securities than senior bonds or other liabilities owed by

that regulated entity. Any equity delivered to bondholders on a mandatory statutory conversion may be illiquid or have a low market value.

Although such bonds may pay a higher rate of interest than comparable bonds which are not subordinated, there is a real risk that an investor in subordinated bonds will lose all or some of his or her investment should the relevant issuer become insolvent or be subject to other analogous proceedings. See also "Regulatory capital risk" and "Corporate hybrid capital risk" below.

Regulatory capital risk – regulatory capital bonds issued by banks and insurers contain terms designed to meet the capital requirements of the relevant banking or insurance group. As well as being subordinated, they may contain issuer-friendly terms such as (i) optional or mandatory interest deferral or cancellation, (ii) mandatory write-down or conversion of principal into equity upon the occurrence of a specified stress event, (iii) deferral of redemption (i.e. repayment of the original investment) and/or (iv) being long-dated (e.g. 30+ years) or having no maturity date at all. They are unlikely to contain typical bond investor protections such as extensive restrictions on the business of the issuer, events of default or enforcement rights.

Regulators may also have greater powers, or a greater willingness, to use their statutory powers to bail-in (i.e. write off or convert into equity) regulatory capital securities than senior bonds or other liabilities owed by a regulated entity. Any equity delivered to bondholders on a mandatory statutory or contractual conversion may be illiquid or have a low market value.

Investors in long-dated or perpetual bonds may have to bear credit risk on the issuer for a long period and possibly, effectively, indefinitely.

Although such bonds may pay a higher rate of interest than comparable bonds which are not subordinated, there is a real risk that an investor in such bonds will have payments on the bonds deferred indefinitely or cancelled or will lose all or some of his or her investment should the relevant issuer become distressed, insolvent or be subject to other analogous proceedings. See also "Contractual or statutory subordination risk" above.

Corporate hybrid capital risk – corporate issuers (such as utility, energy and telecommunications companies) sometimes issue subordinated bonds intended to have a particular effect for accounting or credit ratings purposes. As well as being subordinated, they may contain issuer-friendly terms such as (i) optional or mandatory interest deferral, (ii) mandatory conversion of principal upon the occurrence of a specified event or date and/or (iv) being long-dated (e.g. 30+ years) or having no maturity date at all. They are unlikely to contain typical bond investor protections such as extensive restrictions on the business of the issuer, events of default or enforcement rights.

Any equity delivered to bondholders on a mandatory contractual conversion may be illiquid or have a low market value.

Investors in long-dated or perpetual bonds may have to bear credit risk on the issuer for a long period and possibly, effectively, indefinitely.

Although such bonds may pay a higher rate of interest than comparable bonds which are not subordinated, there is a real risk that an investor in such bonds will have payments on the bonds deferred indefinitely or cancelled or will lose all or some of his or her investment should the relevant issuer become distressed, insolvent or be subject to other analogous proceedings. See also "Contractual or statutory subordination risk" above.

High Yield bonds – non-investment grade bonds may suffer from more volatile price movements in the secondary markets than investment grade bonds; in particular, in times of macro-economic or industry-specific uncertainty. Non-investment grade bonds are also expected to be more susceptible to payment default and restructuring proposals than investment grade bonds.

High yield bond issuers tend to be highly leveraged i.e. to have significant amounts of debt outstanding compared to the equity (share) value of the issuer and its group. This may make it more difficult for the issuer to satisfy its payment obligations under the bonds.

While some High Yield bonds purport to give security over assets of the issuer or its group it may be difficult and expensive for bondholders to extract any value from such security if the issuer defaults on scheduled payment under the bonds. The secured assets may not provide any significant value at that time and enforcement of the security may involve lengthy court or other administrative processes (including in foreign countries where enforcement may be more difficult). If assets are to be recovered from the issuer, it could take many years to realise them and any cash proceeds from their sale; the costs of such recovery will have to be met before any cash sums are shared.

Although such bonds may pay a higher rate of interest than comparable investment grade bonds, there is a real risk that an investor in such bonds will lose all or some of his or her investment should the relevant issuer become unable to meet scheduled payments, become subject to a debt restructuring proposal, become insolvent or be subject to other analogous proceedings. See also "2. Bonds and Fixed Income Investments – A. What is a Bond? – Non-investment grade bonds" above and also "16. Emerging Markets" below.

3. CERTIFICATES OF DEPOSIT

A. WHAT IS A CERTIFICATE OF DEPOSIT?

A Certificate of Deposit ("CD") is a financial product similar to the making of a deposit in a savings account. A CD typically has a specific, fixed term (often three months, six months, or one to five years) and usually, a fixed interest rate. It is intended that the CD be held until maturity at which time the money may be withdrawn together with accrued interest. In many countries CDs are not treated as deposits but as debt securities and therefore do not benefit from the protections that government or regulatory agencies might offer in respect of deposits, including those provided under the Swiss legislation. However any acquisition of CDs may benefit from the protections afforded

by the Swiss legislation in relation to investment business. The CDs that we typically offer will be those CDs that are treated as debt securities.

B. HOW DOES INVESTING IN CERTIFICATES OF DEPOSIT REWARD INVESTORS?

Certificates of Deposit pay a fixed interest rate. On the maturity of the CD, the issuer is obliged to repay the principal, together with any accrued but unpaid interest.

C. WHAT ARE THE RISKS OF INVESTING IN A CERTIFICATE OF DEPOSIT?

An investment in CDs exposes an investor to risks which are similar to the risks associated with bonds and fixed income investments (see Section 3.2), for example:

Credit risk – the issuer of the CDs may fail to repay some or all of the amount invested and/or interest payable on that amount, resulting in a loss to the investor. The lower the credit rating of the issuer the higher the credit risk. Some issuers will not have a credit rating which means it may be difficult to assess the credit risk.

Liquidity risk – although CDs are normally treated as debt securities and are tradable, most investors find that there is very limited liquidity in the secondary market, making it difficult for them to dispose of their CDs in that market. CDs, which have varying terms ranging from less than a year to many years, are intended to be held for the whole of the term of the CD. The issuer may not buy back the CD or permit redemptions during the term or it may do so only with a significant financial penalty to the investor. Selling a CD prior to maturity could result in a significant loss to the investor.

Market risk – movement in the price of a CD due to fluctuations in interest rates and credit spreads (reflecting relative credit risk) can cause the price of a CD to decline with the result that losses may be incurred rather than profits made as a result of buying and selling CDs.

Currency risk – if an investor chooses to convert payments made on CDs into their reference currency they will also be exposed to currency exchange rate risk.

4. INVESTMENTS IN REGULATED FUNDS

Funds, also often known as collective investment schemes, can take many different forms and can invest in many different types of investment products, including many of those described elsewhere in this Risk Disclosure Booklet. Funds can be “regulated” or “unregulated”, or “closed ended” or “open ended”. An investment in funds will expose an investor to different risks depending on the form of the fund, its investment manager and its investment strategy.

Set out below are a list of different types of funds and the risks associated with investing in such types of funds.

I. SWISS COLLECTIVE INVESTMENT SCHEMES

A. WHAT ARE COLLECTIVE INVESTMENT SCHEMES?

Collective investment schemes are pools of assets supplied by investors to be jointly invested on their account. They make broadly diversified investments possible with a small amount of invested capital.

Collective investment schemes come in many different forms and are extensively regulated in Switzerland. In particular, they are subject to approval and supervision by the Swiss Financial Market Supervisory Authority FINMA. The main form of collective investment scheme is the contractual investment fund. Investors in Switzerland can choose from a wide range of foreign funds in addition to Swiss-domiciled ones. Collective investment schemes may adopt various strategies: money market, equities, bonds, asset allocation, real estate, commodities or alternative investments. The legal documents constituting a fund – the fund regulations, articles of association or fund contract – describe the investments it can make.

Swiss collective investment schemes are governed by the Collective Investment Schemes Act (CISA), which recognises the following categories of collective investment scheme:

Contractual and company-law collective investment schemes

The main form of collective investment scheme in Switzerland is the contractual investment fund. Other forms are investment companies with variable capital (SICAVs), investment companies with fixed capital (SICAFs) and limited partnerships for collective investment.

With a contractual investment fund, the relationships between the investors, the fund management company and the custodian bank are set out in a fund contract. The fund management company manages the fund on behalf of the investors. It makes the investment decisions, keeps the accounts and performs all administrative tasks. The custodian bank holds the fund’s assets in custody. It takes care of payments and is responsible for issuing and redeeming fund units. Contractual investment funds are open-ended funds, i.e. investors have the right to terminate the contractual relationship at any time by redeeming their fund units at the net asset value (NAV). New investors can also buy into the fund.

Fund management companies, SICAVs, SICAFs and limited partnerships are comprehensively regulated, require authorisation from FINMA and are supervised by FINMA. The assets of a contractual collective investment scheme under Swiss law are segregated in favour of investors if the fund management company goes bankrupt. Such segregation is not required for SICAVs, SICAFs and limited partnerships as they are legally separate companies.

Open-ended collective investment schemes

Contractual investment funds and SICAVs are open-ended collective investment schemes. This means that investors are in principle entitled to redeem their units at any time, and new investors can invest into them at any time. Depending on their investment policy, however, there may be certain restrictions on the right to redeem units at any time.

Closed-ended collective investment schemes
SICAFs and limited partnerships for collective investment are closed-ended collective investment schemes. This means that investors have no fundamental legal right to redeem their units.

Securities funds and other funds for traditional and non-traditional investments
Open-ended collective investment schemes under Swiss law are divided into the following categories according to their investment guidelines: securities funds, other funds for traditional investments, other funds for alternative investments and real estate funds.

Securities funds invest in securities or rights issued on a large scale and traded on an exchange or another regulated market that is open to the public. They are intended for investments in liquid financial instruments and can only invest in other financial instruments to a limited extent.

Other funds for traditional investments and for alternative investments are subject to less strict investment rules than securities funds. They also have more scope than securities funds as regards their use of investment techniques and derivatives.

II. FOREIGN COLLECTIVE INVESTMENT SCHEMES

A. WHAT IS A REGULATED COLLECTIVE INVESTMENT SCHEME OR RETAIL OR MUTUAL FUND?

This section addresses funds which are regulated and open-ended, sometimes known as mutual funds or retail funds (we refer to these as “Funds” in this section). Particular types of funds such as money market funds, exchange traded funds, hedge funds and private equity funds have certain features in common with those of Funds but there are also key differences which are described in more detail in the relevant sections below.

A Fund involves an arrangement that enables a number of investors to pool their assets and have these professionally managed by an independent manager. The Fund will collect subscriptions from investors, issue shares or units to investors and manage the invested cash in accordance with a predefined investment strategy. The combined holdings in which the fund invests are known as its portfolio. Each share or unit represents an investor’s proportionate ownership of the fund’s holdings and the income those holdings generate. Funds may have different legal forms; some are corporate entities, some are formed by contract and some are partnerships. The Funds that we refer to in this section are regulated, meaning that their establishment and the manner in which they are operated is subject to regulation and has been approved by a regulator. For example in the European Union, regulated, open-ended funds may be marketed on a cross border basis provided they conform to the criteria set out in the UCITS Directives (Undertakings for Collective Investment in Transferable Securities). The management and investment strategies of UCITS funds are subject to the provisions of the UCITS rules which apply throughout the European Union. Funds which are UCITS compliant share similar investment restrictions and rules on diversification and concentration which are designed to make them more suitable for retail investors than unregulated funds (which can, as described below, involve greater risks) and which enables them (subject to certain limits) to be marketed to retail investors throughout the European Union. Open-ended funds, such as those established under the UCITS rules, issue units or shares on a continuous basis allowing investors to invest and exit their investment on a regular basis.

Closed-ended funds are established with a limited amount of share capital and are designed with the intention that investors hold their investments for the life of the fund which is often in excess of 10 years.

Funds typically invest in more liquid investments such as stocks, bonds, money-market instruments, other securities or assets or some combination of these investments although UCITS funds may also invest in derivatives. Some of the traditional, distinguishing characteristics of Funds include the following:

- Investors purchase shares from the Fund itself (or through a broker for the Fund) instead of from other investors on a secondary market such as a stock exchange. However this is not the case for Exchange Traded Funds (“ETFs”), the shares of which can be traded on an exchange.
- The price that investors pay for shares is the Fund’s per share net asset value (“NAV”) plus any shareholder fees that the Fund imposes at the time of purchase. The NAV is typically published on a daily basis although in relation to some Funds the NAV can be published less frequently, for example weekly or even monthly. The price for a share in an ETF is determined in the same way as a share of a company and is generally available continuously through the day from the relevant exchange on which it is traded and/or from other electronic sources.
- Funds are generally open-ended meaning that they create and sell new shares to accommodate new investors. In other words, they sell their shares on a continuous basis, although some funds stop selling when, for example, they become too large.
- The investment portfolios of Funds are typically managed by separate entities known as “investment advisers” or “investment managers” that may be registered with a relevant regulatory authority.
- Funds may accommodate investors who do not wish to invest a lot of money by setting relatively low amounts for initial purchases, subsequent monthly purchases or both.
- Funds are generally liquid. Investors are usually able to readily redeem their shares at the current NAV, plus any fees and charges assessed on redemption, at any time. Investors in shares of ETFs can sell such shares on an exchange through a broker in the same way that they would sell a share in a listed company.
- The valuation of a Fund is generally controlled by the relevant investment manager or the investment adviser (as the case may be) of the Fund. Valuations are performed in accordance with the terms and conditions governing the Fund. There are important risks relating to the process for valuation which are referred to below.
- Regulated funds are offered by way of a simplified prospectus or key information document.

WHAT IS AN EXCHANGE TRADED FUND (’’ETF’’)?
ETFs are open-ended funds that are designed to track, before fees and expenses, the performance or returns of a relevant underlying index. They are often referred to as “passively managed”, meaning that the investment manager is not selecting underlying stocks, merely following the underlying index. Physical replication and synthetic replication are two of the most common structures used in the construction of ETFs. Physically replicated ETFs buy all or a representative portion of the underlying securities in the index that they track. In contrast, some ETFs do not purchase the underlying assets but gain exposure to them by use of swaps or other derivative instruments. This is often referred to as “synthetic exposure”.

WHAT IS A FUND OF FUNDS?
A Fund of Funds is a fund which invests in other funds (the "Underlying Funds"). A Fund of Funds can be regulated or unregulated, closed-ended or open-ended and might invest in any type of fund, such as retail or mutual funds, alternative collective investment schemes or vehicles or ETFs. The Funds of Funds that J.P. Morgan Private Bank typically offers are Funds that invest in other funds.

WHAT IS A MONEY MARKET FUND ("MMF")?
A Money Market Fund is a fund that invests exclusively in government securities, certificates of deposit, commercial paper or other highly liquid and low-risk securities. These funds have relatively low risks compared to other funds and pay dividends that generally reflect short-term interest rates.

B. HOW DOES INVESTING IN FUNDS REWARD INVESTORS?

An investor in a Fund may look for capital growth as the value of the Fund's investment grows. Certain Funds may also be designed to generate income for investors and some Funds offer different share classes, one class for investors seeking capital growth (an accumulating share class) and one class for investors seeking income (a distributing share class).

Funds often provide the benefit of diversification. Many (though not all) Funds have an investment strategy that spreads investments across a wide range of companies, industry sectors and sometimes asset classes in order to help lower your risk if an individual company or sector fails. Some investors find it easier to achieve diversification through ownership of Funds rather than through ownership of individual stocks or bonds.

C. WHAT ARE THE RISKS OF INVESTING IN FUNDS?

Funds and their underlying assets are potentially exposed to all of the major risks referred to in Section 2. When investing in Funds, investors should be aware of the specific risks relating to the investment in the Fund itself, as well as to the risks that the Fund incurs in carrying out its investment strategy, which will, of course, have an impact on the value of the investment that the investor has made. Among the key risks are:

Funds are not cash deposits – an investment in a Fund is not a deposit at a bank and, accordingly, it is not guaranteed, protected or insured by any government agency. The principal invested in a Fund is capable of fluctuation and it is possible to lose money by investing in Funds, however low risk or diversified their strategy may be.

Investment manager risk – the Fund's investments are managed by the appointed investment manager and shareholders or investors will not have the ability to take part in the day-to-day management or investment operations of the Fund. The success of the Fund is dependent on the abilities of the investment manager. If a Fund were to lose the services of the investment manager, the Fund might have to be liquidated. Investors typically have no control over the investments that are being made by the investment manager.

Market risk – the success of the Fund's investment activity and, therefore, the value of the investment in the Fund will be dependent on general economic conditions and upon the correct assessment of the future price movements of the instruments in which the Fund invests.

Liquidity risk – shares in a Fund are not generally listed and there may be no market for them except through redemption. Even in a UCITS Fund, under certain conditions there may be restrictions on redemption and on transfer of shares. Large redemptions within a limited period of time could require the Fund to liquidate positions rapidly with an adverse impact on shares being redeemed and those outstanding. In some circumstances, a Fund may withhold for long periods all or part of the redemption proceeds payable to an investor .

Performance fee risk – in some Funds the investment manager may be entitled to a performance fee based on the increase in the value of the Fund's portfolio. The performance fee may create an incentive for the investment manager to make riskier and more speculative investments.

Counterparty risk – where the Fund has entered into contractual or hedging arrangements with counterparties they may not perform their obligations thereby causing the Fund a loss. Neither a Fund nor its investment manager will generally have any rights to recommend, appoint or dismiss the administrators, custodians or other service providers of the Underlying Funds.

Legal and regulatory risk – regulatory and/or legal requirements may limit the Fund's ability to invest in certain assets thereby affecting its performance.

Taxation risk – most Funds will not be managed or operated to ensure optimal tax consequences for an investor nor will they always provide the necessary tax information to enable particular investors to assess the tax risks of investing in the Fund or to enable them to complete their tax returns.

Costs – the investment manager will be paid an investment management fee irrespective of the performance of the Fund and, in certain circumstances, may also be paid a performance fee. The providers of services to the Fund (such as the custodian of the Fund assets, the administrator and the Fund's brokers), must also be paid. The Fund will normally be charged transaction charges by the Fund's broker when it buys and sells investments. All these costs are deducted from the assets of the Fund to produce the Net Asset Value or "NAV" calculation. Such costs can substantially decrease the value of an investment in the Fund. Depending on the timing of their investment, investors may also have to pay taxes on any capital gains distribution they receive, even if the Fund performs poorly.

Price and valuation risk – in contrast to equities where prices can frequently be obtained at or close to real time, purchase or redemption of a Fund's shares will typically depend on the Fund's NAV, which the Fund might not calculate until many hours after investors have placed their orders and such calculations might sometimes be suspended. In addition, valuations may be based on the unaudited financial records of the Fund and any accounts pertaining thereto. Such valuations may be preliminary calculations of the net asset values of the Fund. As a consequence investors may have difficulty accurately valuing their investment and uncertainties as to valuations may have an adverse effect on the net asset value of the relevant Fund if such judgments regarding valuation prove to be incorrect.

Risks associated with the Fund's investments – a Fund which invests in equities, fixed income investments, structured products, derivatives (both OTC and exchange traded) and/or commodities will potentially be exposed to many of the general risks referred to in Section 2 as well as the risks of investing in particular products noted in this Section. Funds may also invest in other assets that will be permitted by their investment guidelines and the relevant regulations. It is not

possible to provide a definitive list of the risks associated with all such investments but such investments may include asset-backed securities and associated risks such as the risk of early repayment.

Emerging markets risk – Funds that invest in emerging markets may be subject to greater risks than Funds that invest in securities of issuers located in established markets, due to a number of factors. The risks of investing in emerging markets are described in more detail in Section 3-16 (Emerging Markets).

Foreign exchange risk – Funds are also subject to currency and foreign exchange risk when purchasing and selling investments.

Lack of regulatory supervision for certain undertakings for collective investments – the Fund may invest in other Funds established in jurisdictions where no or less supervision is exercised on such Funds by regulators and where there may be fewer safeguards to protect the interests of shareholders such as the Fund.

SPECIFIC RISKS OF CERTAIN TYPES OF FUNDS

In addition to the general risks associated with an investment in any type of Fund you may be exposed to certain additional risks depending on the type of fund in which the investment is made. These specific risks are set out below.

RISKS OF EXCHANGE TRADED FUNDS

As a general rule, each ETF has its own risk structure based on the risk inherent in the index which it tracks and the strategy which it adopts to achieve its investment objective. Many ETFs are structured as UCITS Funds, in which case they will be subject to the investment restrictions and parameters typical of a UCITS scheme. Below are some of the material risks associated with ETFs that adopt physical replication and/or synthetic replication.

Market risk – an ETF's net asset value ("NAV") and trading prices will react to political, economic, currency and market movements. You may lose money over short periods due to fluctuation in the ETF's NAV and trading price in response to adverse political, economic, currency and market movements, and over longer periods during market downturns.

Counterparty risk – an ETF will bear the risk of counterparty and settlement failures. Any such failure may have a material adverse effect on the ETF and the NAV. With respect to an ETF that achieves its investment objective by synthetic exposure, the derivatives represent direct, general and unsecured contractual obligations of the counterparty only and not other persons. In particular, these derivatives do not provide the ETF or the investment manager with any legal or equitable interest of any type in the underlying securities. Accordingly, investors will be exposed to the counterparty risk of the counterparty to the derivative. Further, potential contagion and concentration risks of derivatives counterparties should be taken into account (e.g. the failure of one derivatives counterparty may have a "knock-on" effect on other derivatives counterparties). Some synthetic ETFs have accompanying collateral to reduce the counterparty risk, but there may be a risk that the market value of the collateral has fallen substantially when the synthetic ETF seeks to realise that collateral.

Liquidity risk – although most ETFs are supported by one or more market makers, there is no assurance that active trading will be maintained. In the event that the market makers default or cease to fulfil their role, an investor may not be able to buy or sell units in the ETF. A synthetic ETF involves greater liquidity risk if the relevant derivatives do not have an active secondary market. An investor may suffer a loss with wider bid-ask spreads (discussed below) in the price of the derivatives. When markets are generally illiquid, collateral held against a counterparty's obligations may also become illiquid, meaning that such risks can be dramatically increased.

Tracking error risk – changes in the NAV of the ETF are unlikely to replicate exactly changes in the performance of the relevant index. Factors such as fees and expenses payable in respect of the ETF, liquidity of the market, imperfect correlation of returns between the securities held by the ETF and those in the underlying index, failure of the tracking strategy, currency differences, changes to the underlying index and regulatory policies may affect the investment manager's ability to achieve close correlation with the underlying index.

Pricing risk – the NAV of the ETF represents the fair price for buying or selling units. As with any listed fund, the secondary market price of units may sometimes trade above or below the NAV – there is a risk, therefore, that an investor may not be able to buy or sell at a price close to this idealised fair value. The deviation from the NAV is dependent on a number of factors, but will be accentuated when there is a large imbalance between market supply and demand for units on the exchange where such units are listed. The "bid/ask" spread (being the difference between the prices being bid by potential purchasers and the prices being asked by potential sellers) is another source of deviation from the NAV. The bid/ask spread can expand during periods of market volatility or market uncertainty, thereby increasing the deviation from the NAV. Where the index/market that the ETF tracks is subject to restricted access, the efficiency in unit creation or redemption to keep the price of the ETF in line with its NAV may be disrupted, causing the ETF to trade at a higher premium or discount to its NAV. An investor may sustain losses if the investor buys an ETF at a premium or sells an ETF when the market price is at a discount to the NAV.

Redemption risk – generally speaking, only "authorised participants" or "participating dealers" (i.e. financial institutions which have entered into arrangements with the receiving agent, the trustee and the investment manager of an ETF) may place orders to create or redeem units of the ETF and redemption orders may be limited, postponed, suspended or rejected in certain circumstances. However, as the ETF is listed on a stock exchange, investors may buy or sell the units at any time during a trading day on that exchange.

Trading in units on exchange may be suspended – an investor will not be able to purchase or sell units on a stock exchange during any period that such exchange suspends trading in the units. The creation and redemption by "authorised participants" or "participating dealers" may also be suspended in the event that the trading of units on a stock exchange is suspended.

RISKS OF FUND OF FUNDS

Investment risk – although the applicable investment managers may be well informed about the range and the quality of Underlying Funds available in the market, there is no guarantee that appropriate Underlying Funds will continue to be available for investment by a Fund.

Investment manager risk – an investor in a Fund of Funds is exposed to the same dependence on the underlying investment manager as a direct investor in the Underlying Fund itself.

Performance fee in respect of the underlying funds – similarly, the investment manager of the Underlying Fund is entitled to a performance fee which may create an incentive for the relevant investment manager to make riskier and more speculative investments and trades.

Performance fee not correlated to the overall performance of the Fund – each investment manager of an Underlying Fund may be compensated based on the performance of that Underlying Fund. Consequently, the performance fee may be payable in respect of one or more of the Underlying Funds when the overall performance of the Fund's portfolio has depreciated or has not met the level which would entitle the applicable investment manager to charge the performance fee.

Duplication of costs, fees and expenses – each Fund will be allocated costs and fees of its own management, administration and other services. In addition, a Fund investing in an Underlying Fund will bear similar costs in its capacity as an investor in that Underlying Fund including, without limitation, any subscription fees. For the avoidance of doubt, performance fees may be payable at both the Fund level and the Underlying Fund level including those Underlying Funds where a subsidiary of JPMorgan Chase & Co. acts as investment manager or management company. Accordingly, aggregate fees and costs are likely to exceed the fees and costs that would typically be incurred in respect of an investment that is not a Fund of Funds.

Diversification risk – all investment decisions in respect of the Underlying Funds will be made by the investment managers of the Underlying Funds and it is possible that the investment managers of different Underlying Funds will take positions or engage in transactions in the same securities or in issues of the same asset class, industry, currency, country or commodity at the same time. Accordingly, there can be no assurance that effective diversification will be achieved in respect of a Fund's portfolio.

Valuation risk – neither a Fund nor its investment manager will generally be part of the valuation process of the Underlying Funds; nor will they have any rights to appoint or dismiss the persons responsible for valuations of the Underlying Funds. There is a risk that the portfolio of the Underlying Funds may from time to time be overvalued or undervalued. In addition, an Underlying Fund may not apply the same valuation methodology applied to a Fund or any other Underlying Fund evaluating their respective portfolios.

Tax risk – There may be additional taxes, charges or levies applied in respect of a Fund's investment in the Underlying Funds. The ability of the Fund to provide relevant tax information to the investor may be adversely affected should the Underlying Fund not provide that tax information to the Fund.

RISKS RELATING TO MONEY MARKET FUNDS

Although Money Market Funds ("MMFs") are designed for investors with a low tolerance of risk and are frequently used as an alternative to cash deposits, an investment in MMFs is not without risks. In addition to the general Fund risks, MMF risks include:

MMFs are not a deposit – an investment in MMFs is not a deposit at a bank and accordingly, it is not guaranteed, protected or insured by any government agency as a deposit The principal invested in MMFs is capable of fluctuation and it is possible to lose money by investing in MMFs.

Income risk – the income of MMFs will decline if interest rates fall. As an MMF's income is based on short-term interest rates, which can fluctuate significantly over short periods, income risk is expected to be high.

Investment manager risk – there is no assurance that the MMFs will achieve the relevant investment objectives. In particular, the performance of MMFs could be affected by poor security selection by the investment manager which will cause the MMFs to underperform relevant benchmarks or other funds with similar investment objectives.

Credit risk – there is a chance that the issuer of a security in which the MMF has invested will fail to pay interest and principal in a timely manner or that the negative perceptions of the issuer's ability to make such payments will cause the price of that security to decline.

RISKS RELATING TO FUNDS THAT USE DERIVATIVES

Some of the Funds may invest in financial derivative instruments such as options, futures, warrants, swaps and forwards, with the aim of reducing risks or costs or to generate additional capital or income, or operate a certain payoff structure in order to meet the investment objectives of the Fund. Such Funds are also subject to the potential risks described in Section 2 and in relation to Funds in general. Risks inherent in the use of financial derivatives include:

Counterparty risk – a loss may be sustained by the Fund as a result of the failure of another party to a derivative to comply with the terms of the derivative.

Leverage risk – many derivatives have a leverage component, therefore adverse changes in the value or level of the underlying asset, rate or index can result in a loss substantially greater than the amount invested in the derivative itself.

Market risk – where the value of the underlying asset of a derivative changes due to market movements, the value of the derivative will become positive or negative, depending on the performance of the underlying asset.

Liquidity risk – if a derivative is particularly large or if the relevant market is illiquid, it may not be possible to initiate a transaction or liquidate a position at an advantageous price.

Other risks – other risks inherent in the use of financial derivatives for investment purposes include but are not limited to (a) dependence on the relevant investment manager's ability to predict correctly movements of the direction of interest rates, currency markets or the prices of securities or of the relevant underlying assets; (b) imperfect correlation between the price of the financial derivative and the prices of the underlying assets; (c) the fact that skills needed to use financial derivatives as part of the investment strategies are different from those needed to select portfolio securities; (d) risk of mispricing or improper valuation of financial derivatives; and (e) risk of embedded leverage through investment in a financial derivative that is itself leveraged.

5. INVESTMENTS IN UNREGULATED FUNDS – ALTERNATIVE COLLECTIVE INVESTMENT SCHEMES AND VEHICLES (E.G. HEDGE FUNDS)

A. WHAT IS AN ALTERNATIVE COLLECTIVE INVESTMENT SCHEME OR VEHICLE (“ACIV”)?

The expression alternative collective investment scheme or vehicle (“ACIV”) refers to an investment fund, investment company or other domestic or foreign legal structure such as a unit trust or limited partnership, whose investments are different from traditional investments in equities and fixed income securities and differs from the regulated fund vehicles referred to above in a number of ways.

Investments in ACIV imply a high degree of risk, including the risk of losing the whole of the amount invested or of the amount that the Investor has undertaken to invest, due to:

(a) the types of investment which need to be made by ACIV,
(b) their structures and operations, and
(c) their lack of regulation and transparency.

ACIVs include a wide range of instruments and strategies and in particular include:

(i) hedge funds,
(ii) private equity,
(iii) real estate, and
(iv) precious metals and other commodities.

The most well-known form of an Alternative Investment Vehicle is the hedge fund. A hedge fund may adopt aggressive strategies, including the widespread use of short selling, leverage, swaps, arbitrage, derivatives and programme trading. Its investment strategies are often highly complex and lack transparency. As a general rule, a hedge fund is designed to manage assets entrusted collectively by a given number of investors. Contrary to what the name “hedge” might suggest, hedge funds often have nothing to do with hedging mechanisms. Each hedge fund has its own risk structure based on the risk inherent in the type of investments made and the risk arising from the ACIV chosen. **Given the large number of possible combinations of such instruments, the risk for each particular ACIV is itself a combination of several specific risks described in this Section. It is therefore not possible to provide an exhaustive description.**

Investments in private equity funds are also included in this category of fund. Further details of the risks associated with investments in private equity funds are set out below.
This type of investment vehicle is generally located in an “offshore” jurisdiction, i.e. in centres such as The Bahamas, Bermuda, the Cayman Islands, Panama or the Dutch West Indies, which have very little or no regulatory supervision.

Given its highly speculative nature, it is not possible to guarantee that an Alternative Investment Vehicle will achieve its investment objective or that there will be any return of the capital invested.

The Swiss financial supervisory authority does not permit the public distribution of such funds in Switzerland. Clients may find it difficult to enforce their rights, and problems and delays may occur when settling buy and sell orders for units of such funds.

The Client should obtain comprehensive advice before investing in any ACIV and examine the offering carefully.

Each ACIV will normally be offered by way of offering memorandum or prospectus and other subscription documentation that contains detailed information on a number of important matters including the investment objectives and rationale, fees, risks, disclaimers and other matters.

EXAMPLES OF INVESTMENT STRATEGIES USED BY ACIVS (ESPECIALLY HEDGE FUNDS)

Typical strategies of ACIVs that are available through J.P. Morgan include but are not limited to the following:

Long/Short Equities – Long/short equity managers primarily make long (buy) and short (sell) investments in equity securities that the managers think are under or overvalued. Long/short equity managers typically do not attempt to offset the amount of long and short positions (i.e., they will be net long or net short), as they seek to generate returns from overall market movements, as well as the selection of specific stocks. The managers may focus on a particular industry or region (e.g. the U.S.) or may allocate holdings across industries or regions (e.g. Europe and Asia). Long/short equity managers typically employ a low to moderate degree of leverage (typically up to 100% and rarely more than 200% of the amount invested). Leverage uses various financial techniques to generate greater exposure to assets than a direct investment in those assets. In broad terms, 100% leverage implies exposure to twice as many assets as the amount invested. This provides the potential for greater returns but greater risk of loss.

Relative Value/Credit – Relative value managers make simultaneous long and short investments in similar securities to benefit from price differentials or have long exposure to non-equity oriented beta opportunities (such as credit). Non-equity oriented beta opportunities include primarily long investments focused on relative value opportunities within a particular asset class. Beta refers to the tendency of a security’s returns to respond to swings in the market, which means that beta opportunities are likely to perform well when the credit markets in general are performing well (and vice versa when the credit markets are not performing well). These managers generally attempt to offset long and short positions to minimize the impact of overall market movements. Different relative value strategies include but are not limited to:

- convertible bond arbitrage - aims to capitalise on price differentials between a convertible bond and its underlying stock;
- statistical arbitrage - aims to capitalise on pricing inefficiencies between securities, identified through mathematical modeling techniques;
- pairs trading - matches a long position and a short position in two stocks in the same sector to exploit price differentials;
- yield curve arbitrage - aims to capitalise on the difference between long and short term interest rates by borrowing at the cheaper rate and investing at the higher one; and
- basis trading - aims to capitalise on the difference between the price of a bond of an issuer and the price which the credit markets indicate is the risk of buying the bonds of that issuer.

The types of instruments traded vary considerably depending on the manager's relative value strategy. As relative value strategies attempt to capture relatively small price differentials between two related securities, moderate to substantial leverage is often employed (typically up to 400% of the amount invested).

Opportunistic/Macro – Opportunistic/macro managers invest in a wide variety of instruments across asset classes, relying on a combination of broad economic models, technical signals and fundamental research to invest across countries, markets, sectors and companies. Futures and options are often used to increase or reduce risk rapidly in a portfolio, to profit from changing markets as indicated by the models and signals which the manager employs. The use of leverage varies considerably.

Event Driven – Distressed – Event driven – distressed managers invest in debt and, less frequently, equity securities of companies in financial difficulty, reorganization or bankruptcy, nonperforming and sub-performing bank loans and emerging market debt. Managers differ in their preference for actively participating in the workout and restructuring process of the companies in financial difficulty in which they invest. The use of leverage varies considerably.

Event Driven – Core – Event driven – core managers invest in securities of companies involved in mergers, acquisitions, restructurings, liquidations, spin-offs, or other special situations that alter a company's financial structure or operating strategy. Accurately forecasting the timing of a transaction is an important element affecting the realized returns, as is managing and hedging against the risks arising from anticipated deals that fail to materialize. The use of leverage varies considerably.

Diversified – Managers utilizing this strategy use two or more of the above strategies.

B. HOW DOES INVESTING IN ACIVS REWARD INVESTORS?

An investor in an ACIV may look for capital growth as the value of the ACIV's investment grows. Certain ACIVs may also be designed to generate income for investors.

C. WHAT ARE THE RISKS OF INVESTING IN ACIVS?

Investments in ACIVs comprise several types of risk which must be distinguished from those inherent in investments in equities, fixed income investments or unit trusts. The particular risk factors inherent in such investments are detailed below.

Risks related to the characteristics of ACIVs

Regulatory risk – generally, non-Swiss, non-UK and non-EEA hedge fund managers do not need to be licensed by an authority and are largely unregulated. In particular, hedge funds are not subject to the numerous investor protection regulations that apply to regulated retail collective investment schemes. These include rules on risk spreading, diversification, liquidity, redemption of fund units at any time, avoidable conflicts of interest, fair prices for fund units, disclosure and limitations on borrowing.

Liquidity risk – the articles of association of most ACIVs contain provisions limiting the transferability of a holder's security (lock-ups). For example, many hedge funds prohibit redemptions during the first year of investment and lock-ups can be for an initial period only or on a rolling basis. If redemptions during such lock-up period are actually permitted, they may be subject to a fee based on a percentage of assets withdrawn. In certain circumstances even if there is no lock-up or the lock-up period has expired, the ACIV may be able to refuse to recognise a redemption request when first made or even at all (for example, if the total redemption requests in any given period exceed a certain percentage of the net asset value of the ACIV). In addition, the ACIV may be entitled to hold back a certain proportion of the amount of the investment redeemed, for example, pending completion of the ACIV's audited accounts for the fiscal year in which the redemption occurred. Hold-backs of 10% are not uncommon. In such cases an investor may have to wait more than a year for the return of the full redemption proceeds and interest may not be paid on such held-back amounts. ACIVs may also have the ability to invest part of their assets in illiquid side-pocket investments which may be subject to greater restrictions on redemption or additional lock-up periods. Side-pocket investments are designated by the manager as being illiquid and not readily marketable. They are typically valued separately from the general portfolio of an ACIV and once designated, distinct valuation, allocation, redemption and distribution rights may apply. A side pocket investment is generally valued at cost until converted to cash or more readily valued securities and fees usually continue to accrue until such side pocket investment is realised or becomes readily marketable. That proportion of an investment in an ACIV attributable to a side pocket investment may not be redeemable until the realisation of such investment or a determination by the ACIV manager that it has become readily marketable. All of the foregoing may prevent an investor transferring interests in the ACIV and the ability of the holder to be indemnified in certain circumstances. In addition, there is generally no liquid secondary market or quotation for units/shares of ACIVs.

Investments made by ACIVs may be illiquid, and consequently ACIVs may not be able to sell such investments at prices that reflect the assessment of their value or the amount paid for such investments. Illiquidity may result from the absence of an established market for the investments as well as legal, contractual or other restrictions on their resale and other factors.

Risks of repayment and suspension of the realisable value – as noted above, interests in ACIVs may be redeemed only infrequently and only after significant notice periods. ACIVs may impose redemption fees or other charges in connection with the redemptions and these will be borne by investors. Large redemptions over a limited time could force ACIVs to impose restrictions on redemption (gates) or to liquidate underlying positions faster than would otherwise be advisable. The amount of the repayment made by an ACIV to an investor may be less than the market value of the securities at the time when the request for repayment was made, due to the fluctuations in the realisable value between the date of the request and the applicable value date. In addition, the ACIV may be forced to make repayment in cash or in kind. Potential delays in reinvesting the amount of a compulsory repayment or in the transfer of a security received after a repayment in kind could make it even more difficult for an investor to generate profits or to offset losses. Moreover, an ACIV may be subject to temporary suspensions in determining its realisable value or even permanent suspensions in advance of liquidation of the ACIV. In this case, an investor may be unable to repay or dispose by other means of the relevant units/shares when it would be more advantageous to do so.

Redemptions in kind of securities or other assets underlying an ACIV which may have been purchased on an investor's behalf will generally not be possible without the consent of the underlying ACIV investment manager who is not obliged to provide such consent or who may impose conditions on the provision of such consent that may be adverse to the investor's interests.

Because J.P. Morgan will hold an investor's interest in certain ACIVs on an omnibus basis or through a feeder fund or conduit vehicle, the terms of any redemption by the investor may, in certain circumstances, differ from those which would be applicable had the investor invested directly. In certain circumstances this may operate to the investor's disadvantage.

Volatility risk – many ACIVs may be subject to greater volatility and instability in their investments as a result of a number of factors including lack of diversification of financial instruments, companies or markets. Investments in capital-risk and financing companies which are, for example, under development, in the process of restructuring, or being bought out, add a high degree of uncertainty for ACIVs. In addition, many ACIVs invest in illiquid financial instruments and use high-risk investment techniques and strategies, which may make it impossible to liquidate positions without incurring substantial losses, or again make it impossible for the ACIV to meet redemption requests. Additionally the ACIV may apply "gates" to redemptions which limit the amount of redemptions that are accepted for any given redemption date. This may for example result in the redemption being rejected, deferred to a future redemption date or subject to pro-ration. These redemption constraints will vary according to the Fund documentation.

It is also possible that the ACIV documentation may permit the ACIV to retain a portion of the redemption proceeds until the financial accounts of the ACIV have been audited or other administrative issues completed. Upon completion, the fund will release the redemption portion withheld earlier.

Information risk – ACIVs may be offered to investors in a private placement, in contrast to regulated funds which are authorised to distribute their shares to the public. Unlike regulated funds, ACIVs are subject to limited obligations with regard to regulations, advertising and information. As a result, only a relatively small amount of information on ACIVs, the value of their shares and their performance is available to the public and such information may not be updated or provided on a periodic basis.

Valuation risk – to determine the value of ACIVs, investors must rely primarily upon the verified or unverified financial information provided or communicated from time to time by the ACIVs and their agents. If the financial information used by an ACIV to determine the realisable value of its own units/shares is incomplete or inexact or if this realisable value does not faithfully reflect the value of its shareholdings, the realisable value per share of the ACIV may be unfavourably affected. ACIVs may make significant changes to their previously communicated realisable value. The ability to correctly assess the value of ACIVs depends on the available information relating to these ACIVs and their investment operations. J.P. Morgan client statements will, therefore, reflect an estimated value typically with some time lag. Given the above, should we provide financial information about an ACIV we cannot warrant its accuracy, completeness, authenticity or reliability.

Relationship between remuneration and performance – the investment managers of most ACIVs are customarily remunerated on the basis of incentive arrangements so that the investment manager may benefit from the increase, including unrealised increase, in the value of the assets managed. Such fee arrangements may create an incentive for investment managers to make investments that are riskier or more speculative than would be the case in the absence of such remuneration agreements. These fee arrangements will vary according to the Fund documentation.

Risks related to investment techniques and strategies – many ACIVs use special investment techniques and strategies that may subject investors to significant risks. Most of those techniques entail substantially greater risks than those to which more traditional investment strategies may be subject. The risks in question may be illustrated by the following examples:

Leverage risk – ACIVs may borrow funds and employ financial instruments and techniques with an embedded leverage effect. The borrowing of funds and the indebtedness incurred by an ACIV may magnify increases or decreases in that ACIV's net asset value. No assurance can be given that debt financing will be available on terms that the ACIV considers acceptable or that the use of leveraged financial instruments and techniques will not generate losses in excess of the amount invested or committed. In addition, the employment of leverage and indebtedness may expose these investment vehicles to the risk of bankruptcy.

Risks related to forward and option contracts – in seeking to enhance performance, an ACIV may engage in forward and option strategies on securities, market indices and other underlyings (See Section 3-9 (Options, Caps and Floors) below for a further discussion of such risks). An investment in such instruments may be subject to greater fluctuation than an investment in the underlying given the leverage effect. The risk of loss on a sale of such instruments may be potentially unlimited. Because of the low margin deposits normally required in forward selling, an extremely high degree of leverage is typical. As a result, a relatively small price movement in a forward contract may cause an investor to incur substantial losses. In some cases, options will be traded over-the-counter with tailored conditions rendering them particularly illiquid and costly to close out prior to maturity. Futures contracts may sometimes fail to trade for several consecutive days due to an imbalance between demand and supply, thereby preventing an ACIV from implementing its strategy as expected. Managing forward contracts and options strategies requires skills and techniques different from those employed in predicting changes in the price of the underlying and adds complexity to an ACIV.

Selling short – certain ACIVs may sell an issuer's securities short in the expectation of "covering" the short sale with securities purchased in the open market at a price lower than that received in the short sale. The possible losses resulting from selling a security short may be unlimited due to the lack of an upper limit on the price to which a security may increase. Short selling activities are also subject to restrictions imposed by market regulations, which could limit the investment activities of ACIVs. This technique adds a further element of complexity to ACIVs.

Key person risk – the success of ACIVs depends widely on the abilities of their investment advisers and/or investment managers or on the experience, contacts and personal skills of certain key staff members. If an ACIV were to lose the services of its investment adviser and/or investment manager or such staff members, its performance might be greatly affected. Their capital reserves are often limited and as a result it is often very difficult for the investor to recover the amount of any damages in the event of the ACIV not fulfilling its legal or contractual obligations. The civil liability of such individuals is generally not covered by any insurance. Moreover, the risk of fraud and malpractice cannot be ruled out.

Service provider/operational risk – the assets of ACIVs are held under the custody or supervision of custodians who are authorised to use sub-custodians and nominees. The institutions, including brokerage firms and banks, with which the ACIVs

(directly or indirectly) transact business, or to which portfolio securities have been entrusted for deposit purposes, may encounter financial difficulties that impair the ACIVs' operational capabilities or financial position. Furthermore, the risks related to the ACIVs' administrators, including their inability accurately to verify the net asset value of the ACIV, constitute an additional risk factor.

Settlement and credit risk – the subscription price of an investment in an ACIV must often be paid by the investor prior to the delivery of the shares, units or other certificates of ownership or participation in the ACIV. By contrast, the settlement of the cash proceeds from redemptions may sometimes be subject to substantial delays. In addition, reinvesting redemption proceeds prior to their being used for new subscriptions may entail further borrowing risks to cover the cash deficit during the settlement period.

Risk related to the liquidation and withdrawal of investments – ACIVs may liquidate positions on a large scale, with the result that, instead of cash, investors receive unlisted equities, which are not negotiable and which often have regulatory restrictions on their sale.

Legal/tax/regulatory risk – investments may be sensitive to possible changes having a potentially negative effect in the legal and fiscal systems or in the regulatory systems in force during their existence.

Most ACIVs are incorporated under the laws of foreign countries (see Section 3-16 (Emerging Markets)). Moreover, the frequent use of a nominee structure, in which the participation rights are formally registered in the name of a third party, means that the investors do not have any voting rights or other rights relating to their participation in an ACIV. Investors may therefore not have any efficient legal recourse against ACIVs, their organs or their investment managers or affiliates.

Foreign exchange risk – a certain proportion of the assets of ACIVs may be held in emerging markets and therefore may be subject to greater foreign exchange risk than investments in securities of issuers located in established markets, due to a number of factors, as described in Section 3-16 (Emerging Markets).

Risks related to Real Estate Investment Trusts ("REITs") – For ACIVs which are REITs, the total return of the REITs is subject to the performance of the property market and is less diversified when compared to general securities funds. The unit price of a REIT may go down if its properties drop in value. Also, dividends may not be paid if the REIT reports an operating loss. REITs may also be highly geared and be subject to interest rate risks when rates rise sharply. In addition, the performance of a REIT should be considered not only in terms of expected yield but also the concentration, quality and length of its property leases. In general, the fewer and smaller the properties in a REIT, the greater the investment risk. Besides, a shorter lease may imply more rapid turnover of tenants and less stable rental income. The underlying assets in a REIT may be illiquid and properties may have to be sold to make distributions if market conditions change, or to meet redemptions in the event the REIT is unlisted or delisted. A REIT may be unable to sell properties expediently where the need arises.

6. DIRECT OR INDIRECT INVESTMENTS IN UNQUOTED COMPANIES ("PRIVATE EQUITY")

A. WHAT IS A PRIVATE EQUITY INVESTMENT?

A "private equity" investment generally involves the placing of investment capital, and especially venture capital, at the disposal of companies, the shares of which are not listed on any stock exchange or other regular market. Recently, however, many large private equity deals involve the buy-out of major listed companies. Private equity investments may take the form, as the case may be, of any of the following: the purchase of a direct shareholding in a company; the purchase of a significant stake in a listed company with a view to influencing the management or strategy of the company; or the acquisition of an interest in an investment fund or other entity (e.g. a partnership) specialising in participations in the form of private equity ("Private Equity Funds").

Private equity investments often require substantial cash investments over a long period with no possibility of early exit. Investors are generally required to commit in advance to responding to subsequent capital calls.

For the recipient companies, the provision of capital in private equity form is principally designed to enable new products or new technologies to be developed; increase working capital; finance acquisitions in the form of "management buy-outs" ("MBOs") or "management buy-ins" ("MBIs"); or improve their balance-sheet situation.

As with ACIVs, private equity funds are frequently, although not always, unregulated.

B. HOW DOES INVESTING IN PRIVATE EQUITY REWARD INVESTORS?

The rewards of private equity are principally derived from the increase in value of the underlying investments and the return of capital to investors resulting from the realisation of the investments either during the life of the Private Equity Fund or upon its dissolution.

C. WHAT ARE THE RISKS OF INVESTING IN PRIVATE EQUITY?

Private equity investments expose the investor to risks of substantial losses including the entire capital initially invested and may be even greater where the investor has undertaken to respond to calls for additional payments. Private equity investments are potentially exposed to all of the risks set out in Section 2 and share many of the risks described in relation to Funds and ACIVs. In addition, the following risks are typical of private equity investments:

Market risk – investments in unlisted companies tend to be highly risky, as such companies are generally smaller, more vulnerable to market fluctuations and technological developments and more dependent on the skills and commitment of a small group of managers, unlike listed companies.

Liquidity risk – such investments, whether made directly or through a Private Equity Fund, may be difficult to liquidate and generally are not transferable. Investors should be aware that their capital will be tied up, either completely or with access subject to restrictions, for a long time, even up to 11 or 12 years. No distributions are made prior to exit from investments. Investors do not normally have any entitlement to early exit. At the end of the lock-up period, the value of the investment may be significantly lower than its acquisition price, or even zero.

Risk of loss of capital commitment – a private equity investment is designed to obtain a high return on the funds invested so that the risk of loss inherent in such an investment is proportionately higher than in the case of investments of a more traditional nature. The investor is contractually obliged to fund all capital calls committed to at the inception of the investment. Investors may lose their entire commitment.

Risk related to the choice of the type of investment – the success of a Private Equity Fund will depend on the ability of its managers to identify, select, develop and realise suitable investments. It is not possible to give any assurance that such investments will be made or that they will prove to be profitable.

Diversification risk – the investment vehicle chosen by the investor may make only a limited number of investments. Consequently, the overall return might be significantly affected by the negative performance of a single investment or a very small number of investments.

Information risk – there is little or no publicly available information concerning private equity investments, their value and their performance because such investments are not subject to the same controls and the same requirements with regard to publication as regulated retail funds whose shares are offered to the public.

Risk related to a minority shareholding – where an investor has the status of a minority shareholder in any given company, it will not always be possible for the investor to defend the investor's interests effectively.

Risk of lack of recourse – the fund / fund manager generally has limited responsibility vis-à-vis the investor. It is therefore possible that even in the case of a substantial loss caused by negligence, the investor may have no effective legal claim against the individuals or entities that were responsible for the loss.

Key person risk – the successful performance of the private equity investments made by the investor may largely depend on the experience, contacts and personal skills of the key members of the staff of the company or investment vehicle concerned.

Risk related to the individuals involved – the training and experience of the individuals responsible for managing private equity investments may be limited. Their capital resources may be small, which means that it may be difficult for the investor to recover from them the amount of any damages which may be incurred if they have breached their duties. In addition, the risk of fraud and malpractice cannot be ruled out.

Legal and tax risk – private equity investments may be sensitive to possible changes having a potentially negative effect in the legal and fiscal systems or in the regulatory systems in force during their existence.

Emerging markets risk – private equity firms are more likely to invest in emerging markets and therefore are exposed to the risks associated with such investments. See Section 3-16 (Emerging Markets).

Risk related to liquidation – a target investment period is generally defined for private equity investments. Upon liquidation or termination of the investment vehicle, the investor may become the direct holder of unlisted securities which are not negotiable and which are often encumbered with regulatory restrictions with regard to their sale.

7. BORROWING AND COLLATERAL/MARGIN

A. LOANS AND TRANSACTIONS REQUIRING MARGIN

As set out in the Private Client Terms we may agree to make loans or extend credit facilities to you. Such loans or credit facilities will be subject to such terms and conditions as we may agree with you, including as to interest and duration. The Bank offers a variety of different facilities for borrowing including uncommitted facilities, committed facilities, term loan mortgage lending and asset finance.

If you borrow, you will be requested to provide collateral. Your borrowings from us will be secured in our favour in accordance with the Private Client Terms, the General Deed of Pledge and Assignment and /or any other collateral arrangements agreed between us as shall be specifically referenced in the terms and conditions of the loan.

In addition, if you trade in derivatives including selling options, you may be required to deposit collateral by way of margin.

B. WHAT ARE THE RISKS ASSOCIATED WITH BORROWING?

Risk of borrowing to fund investments – investors should always be aware of the risks associated with borrowing to increase their exposure to a particular investment. Leveraged investments involve significant risks; some of the key risks involved are outlined hereinafter.

Potential Loss of Investment - Borrowing can increase profits if the investment that is purchased using the loan increases in value. However, if the investment decreases in value, the losses caused to the investor as a result of the greater exposure to the investment, the costs of the loan and the obligation to provide more collateral and/or to repay the loan at a time which may be most disadvantageous to the borrower, can increase losses substantially.

Therefore where a borrower uses an existing investment portfolio with a market value of US$12 million as collateral and borrows US$10 million under a facility agreement with JPMS to

purchase an additional US$10 million of the same investments and the investments lose 10% of their value, a loss of US$1.2 million will occur on the original investment portfolio but a loss of US$2.2 million will occur with respect to the total portfolio of investments that the borrower has. Notwithstanding this loss, the borrower continues to be liable for all outstanding amounts in respect of the facility agreement of US$10 million together with all fees and interest owing on that facility agreement. The borrower's liability to JPMS remains even if the investments lose all of its value.

A borrower must therefore be prepared to sustain the loss of some or all of the investment portfolio and have the necessary additional assets to finance the repayment of the facility agreement. In that context, particular attention should be paid to the maturity of the leveraged investments. If such maturity occurs after the loan is repaid, the borrower may need to finance repayment through other assets.

Margin call risk – The value ascribed to your collateral may vary from time to time but should always be at least equal to your liabilities. If insufficient collateral is maintained, you will be required to deposit additional collateral with us or to pay or prepay, in whole or in part, such liabilities (a "margin call"). If you fail promptly to respond to the margin call your collateral may be liquidated at a time which may be disadvantageous to you. Accordingly, you may lose the whole of any investments held as collateral in support of your liabilities.

JPMS may make a margin call in the circumstances below:
The borrower should be ready to meet margin calls and provide additional collateral within a very short period of time (which may be 72 hours or less). If the margin call is not met, the investments in the portfolio can be liquidated to increase the Collateral Value. JPMS can sell the pledged securities or other assets without further contact with the borrower. The borrower is not entitled to choose which securities or other assets are liquidated or sold to meet the margin call.

- **Changes in Collateral Value** – JPMS in its absolute discretion may change the amount of collateral the borrower is required to provide to support the facility agreement at any time during the period of the facility agreement without notice to the borrower. In circumstances where JPMS changes the Collateral Value or decides that some assets are no longer eligible to serve as collateral to support the facility agreement and as a result the borrower is required to provide additional collateral as security, the borrower will be notified and a margin call made.
- **Investments decrease in market value** – If the market value of the investments provided as collateral decrease and as a result the collateral provided by the borrower is less than the Collateral Value, there may be insufficient collateral to support the borrower's obligations under the facility agreement and a margin call may be made.
- **Currency Risk** – If the currency that the borrower's liability is denominated in and the currency of the collateral provided by the borrower are not the same, fluctuations in currency exchange rates may mean that the value of the collateral provided by the borrower may no longer be sufficient to support the borrower's liabilities under the facility agreement and in such circumstances a margin call may be made.

Risk of increased interest rates – Changing interest rates can impact the borrower's cost to borrow money. Where the borrower selects a variable interest rate and interest rates rise, the borrower will be liable for these increased costs. Where the borrower has borrowed to fund investments and interest rates rise, this could negatively impact the profit made on the investments. Changing interest rates should be considered when deciding the maturity of the loan. Time to maturity can magnify the impact of changing interest rates and have a large impact on the borrower's returns.

Tax risks – loan transactions may have tax implications for the borrower, depending on the tax status of the borrower and certain other matters, such as the use of the proceeds of the loan or credit facility to finance leveraged investments. JPMS does not provide any tax related advice to the borrower in this respect; the borrower should consult with his/her/its own tax advisers to the extent he/she/it has deemed necessary.

For the surplus, we invite you to read carefully the *Disclosure of Risks Inherent in Borrowing and Leverage* which is enclosed as Appendix 2 to your facility agreement. Please note however that this section and the *Disclosure of Risks Inherent in Borrowing and Leverage* should not be considered to provide a comprehensive overview of all of the risks related to borrowing and leverage and you should take advice from your own financial, tax, legal and other advisors, as appropriate, prior to engaging in borrowing and/or leveraged investments.

8. STRUCTURED PRODUCTS

A. WHAT IS A STRUCTURED PRODUCT?

Structured products are combinations of two or more financial products in a single instrument and are issued either publicly, which may or may not include a listing on an exchange, or privately. Their redemption value depends on the performance of one or more underlyings. They will generally have a fixed term and consist of one or more components. Certain structured products include a component enabling the Investor to participate in the performance of one or more underlying(s) (yield enhancement or participation products). Some products involve a leverage effect. Certain structured products offer principal protection (subject to issuer / guarantor credit risk).

As this is not always the case, the Investor should carefully consider whether a structured product is or is not principal protected and the related risks (see below).

Structured products are not categorised as collective investments under the Collective Investments Schemes Act (Federal Act on Collective Investment Schemes). Unlike with collective investments, the issuer is liable with its own assets (as is any guarantor, to the extent of a guarantee it has provided), and there is in principle no backing from specially protected assets. The Investor needs to keep in mind that in addition to a potential loss resulting from a decline in the market value of the underlying, he/she may in the worst case lose his/her entire investment because the issuer or guarantor becomes insolvent. The product value is therefore dependent not only on the performance of the underlying asset but also on the creditworthiness of the issuer/guarantor, which may change throughout the term of the product.

Every structured product has its own risk profile and the risks of its individual components may be reduced, eliminated or increased. In particular, it may profit to different degrees from rising, constant or falling market values of the underlying, depending on the product involved.

The Investor should consider his/her investment in the structured product as a “hold until maturity” product. Outside of normal market circumstances, the issuer does not generally commit to offer regular unwind prices. The Investor may receive unfavourable prices from the issuer if he/she requests an early termination of his/her investment.

It is extremely important that the Investor determines and understands the exact risks attached to the product prior to investing in it. This information can be found in the issue document or the product description concerned.

By investing in a structured product, the Investor is taking the economic exposure on the underlying without the legal ownership. The Investor does not have any entitlement to voting rights or dividends on the underlying.

The Investor should bear in mind that the market valuation and any mid-life events, e.g. credit event, callable event, worst of event are determined by the issuer at its discretion.

WHAT TECHNIQUES ARE USED IN STRUCTURED PRODUCTS?
Below is a list of the basic techniques which are commonly used to provide investors with a return on a structured product:

Leverage – the structured product may provide an enhanced return based upon a pre-defined multiple of the actual return of the underlying. Alternatively the loss to the investor may be accelerated by a multiple of the actual loss of the underlying.

Barriers – the structured product may provide a return up to a pre-defined limit and upon reaching or breaching such limit (a knock-out barrier) the return may be completely eliminated. Conversely, the structured product may not allow for any return until a limit is reached or breached (a knock-in barrier).

Capped returns – the structured product may provide for a return that tracks the return of the underlying up to a pre-defined limit. If the underlying continues to exceed this limit, then the return of the structured product will not continue to track it, but will be capped at the pre-defined maximum return.

Conditional payout – the structured product may have a return/payout that is contingent upon an event such as a credit event on a defined underlying.

Worst of multiple outcomes – the structured product may provide for a return that tracks the return of the lower or worst of multiple underlyings.

Callable structures – the issuer has the discretion to call the structured product from the holder, prior to maturity, at a pre-defined redemption repayment amount, if certain pre-defined events or thresholds are reached or breached.

Buffers – the structured product may provide a level of principal protection down to a pre-defined limit. Below this limit, the investor may incur an accelerated loss of principal invested.

The above techniques are not an exhaustive list and may be combined into more complex/sophisticated products, the payout of which is generally customised.

It is important to note that some debt products such as collateralised debt obligations and asset backed securities, may appear simple when they actually carry considerable risk. Therefore, the investor should not confuse complexity with risk.

Many structured products can be made callable by the issuer for the purpose of enhancing the return. In return for this additional revenue, the Investor takes the risk that the issuer will call and thereby terminate the issue at a time when it is potentially most profitable for the issuer.

Credit-linked features can be added to any type of structure in order to boost returns. This is made possible by the additional credit risk introduced by the credit link, in other words, the investor faces both the issuer and the credit risks introduced by that link, for example if the exposure is to the performance of an underlying corporate entity or fund which, itself, has credit risk.

STRUCTURED PRODUCTS WITH PRINCIPAL PROTECTION (ESPECIALLY “MARKET PARTICIPATION NOTES”)
The “principal protection” component
Some structured products offer principal protection. The level of this protection is fixed by the issuer when the product is issued and indicates the percentage of the nominal value that the issuer commits to repay to the Investor on expiration. However, principal protection generally only applies at maturity, and may, depending on the product, be less than 100% of the invested amount. Structured products with principal protection consist of two elements, such as a fixed income investment (especially a bond or a money market investment) and an option or other participation component. This combination enables the holder to participate in the performance of one or more underlyings (via the option or participation component) while at the same time limiting potential losses (via the fixed income investment or principal protection component). The principal protection component may only cover a portion of the principal invested.

Subject to the issuer credit risk, the principal protection component determines the minimum repayment that the Investor receives at maturity, regardless of how the participation component performs. Structured products with principal protection generally offer lower returns than direct investments in the underlying, as the principal protection has a cost.

The principal protection component may be less than 100% of the initial invested amount depending on the product, e.g. when the issue/purchase price exceeds the nominal value. Principal protection does not therefore mean repayment of 100% of the nominal value of the purchase price for all products. Further, the principal protection may be conditional only, i.e. the protection can be lost if the value of the underlying touches, falls below or rises above a pre-determined threshold (barrier, knock-out-level). If the Investor wishes to terminate a structured product with principal protection before it expires, he/she may receive less than the principal protection component as the principal protection only applies if the product is held until the maturity date.

The "participation" component
The participation component determines how the Investor participates in the performance of the underlying. It determines the potential profit to be made over and above the principal protection. The purchaser's participation component generally takes the form of a derivative product or a combination of derivative products. The Investor's participation may be equal to, lower than or higher than the performance of the underlying (the participation level). If the underlying performs well, the participation will be added to the repayment of the guaranteed principal.

Risks
Potential loss of the non-protected principal:
Subject to the issuer credit risk, the potential loss at the time of purchasing a structured product with principal protection is in principle limited to the difference between the price paid and the principal protection level.

However, during the life of the structured product, its price may also fall below the principal protection level, thereby increasing the potential loss in the event of a sale prior to the maturity date. The risk on the participation component is the same as that on the corresponding option or combination of options. Depending on the movements in the market value of the underlying(s), the participation component may therefore be zero.

Currency fluctuations:
If the underlying(s) is (are) expressed in a currency other than that in which the structured product itself is expressed, the amount of the final redemption payable on the product may be affected by any unfavourable change in the exchange rate between these two currencies.

Market disruption:
It is possible that the calculating agent may decide, at its sole discretion, that one or more markets essential in determining the value of the participation component have been seriously affected by events which, in the opinion of the calculating agent, constitute market destabilisation factors. In such a case, the calculating agent is entitled to modify various positions, such as for example the dates on which the value of the product is determined or the maturity date of the latter, in accordance with general market practices. It is possible that a market destabilisation factor may negatively affect the performance level of the participation component which the Client was normally entitled to receive.

Measurement of performance based on an average:
In certain cases, the applicable conditions may stipulate that the performance of the participation component shall be based on an average of the values of the underlying(s) recorded at given intervals throughout the life of the product. Although this contributes to reducing the Client's exposure to significant unfavourable changes in the value of the participation component of the product, it also reduces in the same proportion any benefit the Client may obtain in the event of significant favourable changes to this value by the same amount.

Lack of liquidity:
The tradability of a structured product depends on whether the issuer or a market maker is prepared to provide a price. Even if they are, liquidity risks can still arise. If the market is not liquid, there is a risk of having to either hold the financial instrument until its maturity or sell it during the term at an unfavourable price. It can also be difficult or impossible to determine a fair price or even compare prices, as there is often only one market maker.

STRUCTURED PRODUCTS WITH NO PRINCIPAL PROTECTION
Definition
These products offer no protection of the initial investment. Their general purpose is to provide exposure on a leveraged basis and/or exposure to one or several underlying(s) which cannot be easily reproduced by direct investment on the market. They generally are a combination of derivative products which results in a complex product profile. The maximum loss is equal to the initial invested amount.

Risks
Structured products with no principal protection are subject in the same way as structured products with principal protection to the risks described above under currency fluctuations, market disruption, measurement of performance based on an average and lack of liquidity and the Client is expressly requested to refer to these explanations. In addition, due to the absence of principal protection, the risk on the participation component will be the same as that on the underlying. In worst case scenarios, the Client may lose the entire amount invested.

B. HOW DOES INVESTING IN STRUCTURED PRODUCTS REWARD INVESTORS?

An investor in a structured product hopes to achieve a gain on the notional amount invested in the structure depending on the performance of the underlying and the strategy of the product. In some cases, structured products may also envisage payments in addition to those contemplated at maturity.

C. WHAT ARE THE RISKS OF INVESTING IN STRUCTURED PRODUCTS?

In addition to the potential exposure to the risks set out in Section 2, the following are some of the risks associated with investments in structured products:
Potential loss of the non-protected principal – subject to the credit risk of the issuer / guarantor, the potential loss at the time of purchasing a structured product with principal protection is in principle limited to the difference between the price paid and the principal protection level. However, during the life of the structured product, its price may also fall below the principal protection level, thereby increasing the potential loss in the event of a sale prior to the maturity date.

Currency/foreign exchange risk – if the underlying(s) is(are) expressed in a currency other than that in which the structured product itself is expressed, the final redemption amount payable on the product may be affected by any unfavourable change in the exchange rate between these two currencies. Where the securities are denominated in a currency other than the investor's reference currency, changes in rates of exchange may have an adverse effect on the value of the investment in the reference currency.

Market disruption and other events – market disruption and other events may result in adjustments to or early redemption of the structured product in accordance with its terms. The determination of whether such an event has occurred and the effect of such event will be made by the issuer or the calculation / determination agent, depending on the terms of the structured product, and may involve the exercise of discretion. The issuer or the calculation / determination agent may have interests adverse to the interests of the investor. Any such exercise of discretion may adversely affect the return on the investment.

Measurement of performance based on average – in certain cases, the terms of the structured product may stipulate that the performance of the underlyings referenced is based on an average of the values of the underlying(s) recorded at given intervals throughout the life of the product. Although this contributes to reducing the investor's exposure to significant unfavourable changes in the value of the underlyings referenced, it also reduces in the same proportion any benefit the investor may obtain in the event of significant favourable changes to this value by the same amount.

Liquidity risk – the tradability of a structured product depends on whether the issuer or a market maker is prepared to provide a price. Even if they are, liquidity risks can still arise. If the market is not liquid, there is a risk of having to either hold the financial instrument until its maturity or sell it during the term at an unfavourable price. It can also be difficult or impossible to determine a fair price or even compare prices, as there is often only one market maker. The investor should consider structured products as "hold until maturity" products. Outside of normal market circumstances, the issuer does not generally commit to offer regular unwind prices. The investor may receive unfavourable prices from the issuer if requesting an early redemption/ sale of the investment before maturity.

Credit risk – in addition to a potential loss resulting from a decline in the market value of the underlying, the investor may in the worst case lose the entire investment because the issuer or guarantor becomes insolvent. The product value is therefore dependent not only on the performance of the underlying asset but also on the creditworthiness of the issuer / guarantor, which may change throughout the term of the product.

No legal ownership of the underlying – by investing in a structured product, the investor is taking the economic exposure on the underlying without the legal ownership. The investor does not have any entitlement to voting rights or dividends on the underlying.

Calculation agent risk – a structured product involves the exercise of discretion by the issuer or calculation / determination agent in making various determinations under the terms of the structured product. The issuer or calculation / determination agent may have interests adverse to the interests of the investor. Any such exercise of discretion may adversely affect the return on the investment.

9. OPTIONS, CAPS AND FLOORS

A. WHAT IS AN OPTION?

An option is a contract between a buyer and a seller that gives the buyer the right – but not the obligation – to buy or to sell a particular asset (the "underlying") at a later date at an agreed price. In return for granting the option, the seller collects a payment (the "premium") from the buyer. A call option gives the buyer the right to buy the underlying; a put option gives the buyer the right to sell the underlying.

In return for payment of the premium, the buyer of a call option acquires the right to buy from the seller a defined proportion (the size of the contract) of the underlying at an agreed price (the "exercise price" or "strike") during a certain fixed period or on a predetermined date (the "expiration date"). In return for payment of the premium, the buyer of a put option acquires the right to sell to the seller a defined proportion of the underlying at the exercise price during a certain fixed period or on the expiration date.

Where an option provides for physical settlement, the underlying asset is to be delivered if the option is exercised. For example, if the buyer of a physically settled call exercises its option, then the seller must deliver the underlying in exchange for payment of the exercise price. Where an option provides for cash settlement, only cash is to be delivered. For example, if the buyer of a cash settled call exercises its option, then the seller must deliver in cash the difference between the exercise price and the market value of the underlying at the time of option exercise.

The price of an option is closely linked to that of the underlying. Any change in the market value of the underlying will generally result in a greater change in the price of the option. This is the effect of leverage. It means that the investor participates disproportionately in any rise or fall in the market value of the underlying.

The contractual specifications of the option are either standardised and traded through an exchange (listed options or exchange traded options) or agreed individually between the buyer and the seller (in the case of mutually negotiated or "over-the-counter" (OTC) options).

"American-style" options are those which may be exercised on any business day up to the expiration date. "European-style" options are those which are exercisable only on their expiration date.

WHAT ASSETS CAN AN OPTION APPLY TO?

The assets underlying an option may be capital assets such as shares, bonds, currencies, commodities or precious metals; reference rates or other references, such as interest rates or indices; derivative products (for example swaps, forwards or

futures contracts); or combinations of various above-mentioned underlying assets, sometimes referred to as baskets.

WHAT ARE "IN-THE-MONEY", "OUT-OF THE MONEY" AND "AT-THE-MONEY" OPTIONS?
A call option is "in-the-money" when the current market value of the underlying asset is higher than the exercise price (also referred to as the "strike"). A put option is "in-the-money" when the current market value of the underlying asset is lower than the strike.

A call option is "out-of-the-money" when the current market value of the underlying asset is lower than the strike. A put option is "out-of-the-money" when the current market value of the underlying asset is higher than the strike.

When the current market value of the underlying asset and the strike are the same, the option is "at-the-money".

The intrinsic value of an option is the value to the holder of the option if it could be exercised now. Hence, it is either worthless if the option is out-of-the-money or equal to the difference between the current market price or level of the underlying asset and the option's strike if the option is in-the-money.

WHAT IS THE MARGIN REQUIREMENT?
If the investor sells an option, the investor will be required to provide collateral or "margin" for the entire life of the contract. The margin is set by the Bank and/or exchange to protect against a possible default by the investor, and may consist of the underlying asset, cash or other collateral. If the margin proves to be insufficient, the investor may be required to provide additional collateral in response to a "margin call". If the investor does not provide the required margin in response to the margin call then the option may be liquidated at a time which may be disadvantageous to the investor. This may result in loss of all margin and loss of the entire investment even where the investment would otherwise have been profitable had it not been liquidated.

FORMS OF OPTIONS
Warrants – a warrant gives the holder the right but not the obligation to buy (in case of a call warrant) or sell (in case of a put warrant) an underlying asset at a predetermined price (strike) from the issuer or receive an equivalent cash amount. Warrants can be issued on a variety of underlyings, such as equities, indices, bonds or commodities, and may be listed on an exchange. The performance of the underlying is reflected in the price of the warrant according to a given ratio. Warrants are leveraged instruments, therefore a relatively small movement in the price of the underlying results in a much larger percentage move in the price of the warrant. At maturity, should the price of the underlying be below the strike for a call warrant (or above for a put warrant), the warrant expires worthless. Your maximum loss is always limited to the initial amount invested.

Listed options – listed (or exchange traded) options are standardised options and are traded on specialist exchanges (for example, EUREX, EURONEXT or CBOT) in accordance with the rules and local practices in force and are executed via a clearing house which guarantees the execution and settlement of the transaction.

Over-the-counter ("OTC") options – OTC options are not listed. They are contracts entered into off-exchange between a buyer and a seller. Thus, a position arising from the purchase or sale of an OTC option can only be liquidated with the same contracting party (the "counterparty"). Such liquidation can be done by either party entering into an exactly off-setting position or unwinding the original option contract. This requires the agreement of both parties.

Customised OTC options, the underlying assets of which may be various, are created specifically for each investor.

FORMS OF "EXOTIC" OPTIONS
Compared with the standard call and put options discussed above ("plain vanilla options"), so-called "exotic" options are subject to various additional conditions and stipulations. There is no limit to the possible structures for exotic options. A distinction is generally drawn between an option whose performance depends upon changes in the underlying asset ("path-dependent") and options relating to more than one underlying asset.

Path-dependent options
The exercise of path-dependent options depends upon fluctuations in the underlying throughout the life of the option. In some cases, the fact that the market price of the underlying reaches or, on the contrary, does not reach, a given level, determines whether the option will be exercised, the time or the amount of the payment, even the obligation of paying the premium. In other cases, changes in the price of the underlying throughout the life of the option will determine the level of the exercise price or its reference rate.

Barrier options
Knock in event – if an option has a knock in barrier and a knock in event does not occur, the option buyer will not receive any return. The occurrence of a knock in event may be dependent on the market price of the relevant underlying. Accordingly, an investor may receive a greater return from an investment linked directly to the performance of the underlying asset.

Knock out event – if an option has a knock out barrier and a knock out event occurs, the return for the option buyer could be reduced and may be completely eliminated. The occurrence of a knock out event may be dependent on the market price of the relevant underlying. If the underlying assets were to perform strongly over the investment term, the return received may be significantly less than an investor would have received from an investment linked directly to the performance of the underlying asset.

Options on more than one underlying asset
For this type of option the calculation of the intrinsic value of the option is based on the difference in the change of two or more underlyings. This difference can be expressed either in absolute terms ("spread option") or as a percentage which reflects the relative performance of one underlying to another ("outperformance option"). It is therefore the performance differential and not the positive or negative change in the respective prices of the underlyings which is the determining factor for this type of option.
Given its specific characteristics, the change in the price of an "exotic" option may differ significantly from that of a "plain vanilla" option throughout its life.

FORMS OF OPTION STRATEGIES
If an investor enters into two or more options based on the same underlying, which differ either in the option type (call or put), the quantity, the strike, the expiration date or the type of position (long or short), it is referred to as an option strategy. Below is a list of common OTC option strategies:

Collar – a collar is a strategy that combines the purchase of a put option with a lower strike and the sale of a call option with a higher strike on the same underlying. In certain circumstances neither party to the strategy pays a premium; this strategy is known as a "zero cost collar". When combined with the holding of the underlying shares, collars can be used to fully / partially protect existing long share positions with little or no cost paid as the premium to be paid for the put option is offset by the premium received from selling the call option.

The maximum risk for the purchaser of the collar is theoretically unlimited, in that the investor will be liable for any increase in the price of the underlying above the strike of the call option times the notional quantity. The maximum risk for the seller of the collar is the strike of the put option times the notional quantity.

Call Spread – a call spread is a strategy that combines the purchase and sale of call options at different strikes on the same underlying. The purchaser (seller) of a call spread purchases (sells) a call option at a lower strike and sells (purchases) a call option at a higher strike. The purchaser of the call spread is giving up any upside potential above the higher strike call and the seller is protected against losses above the higher strike call.

The maximum risk for the purchaser of a call spread is the loss of the premium paid. The maximum risk for the seller of the call spread is the difference between the strikes of the two options times the notional quantity.

Put Spread – a put spread is a strategy that combines the purchase and sale of put options at different strikes and on the same underlying. The purchaser (seller) of a put spread purchases (sells) a put option at a higher strike and sells (purchases) a put option at a lower strike. The purchaser of the put spread is giving up any upside potential below the lower strike and the seller is protected against losses below the lower strike.

The maximum risk for the purchaser of the put spread is the loss of the premium paid. The maximum risk for the seller of the put spread is the difference between the strikes of the two options times the notional quantity.

Straddle – a straddle is a strategy that combines a call option and a put option at the same strike price and on the same underlying. The purchaser (seller) of a straddle purchases (sells) the call option and the put option.

The purchaser of a straddle is exposed to the risk that at expiry the price of the underlying will not be significantly less or greater than the strike. The maximum loss is the loss of the premium paid. The seller of a straddle is exposed to the risk that the price of the underlying will be significantly higher or lower than the strike. The maximum loss for the seller is theoretically unlimited, in that the investor will be liable for any increase in the price of the underlying above the strike of the call option times the notional quantity. The seller is also at risk for any decrease in the price of the underlying below the strike of the put option, with the maximum risk under the put option being the strike times the notional quantity.

Strangle – a strangle is a strategy that combines the purchase (sale) of a call option at a higher strike and a put option at a lower strike.

The purchaser is exposed to the risk that at expiry the price of the underlying will not be significantly less than the lower strike of the put option or greater than the higher strike of the call option. The maximum loss is the loss of the premium paid. The seller of a strangle is exposed to the risk that at expiry the price of the underlying will not be between the lower strike of the put option and the higher strike of the call option. The maximum loss for the seller is theoretically unlimited, in that the seller will be liable for any increase in the price of the underlying above the higher strike of the call option times the notional quantity. The seller is also at risk for any decrease in the price of the underlying below the lower strike of the put option, with the maximum risk under the put option being the strike times the notional quantity.

As an option strategy results from the combination of different options, the unwinding or partial unwinding of only some options forming part of a strategy will entail a significant change in the total risk assumed and accepted at the outset.

B. HOW DOES INVESTING IN OPTIONS REWARD INVESTORS?

The buyer of a call option may generate a gain if the market value of the underlying rises or in the case of a put option if the market value of the underlying declines. Any gain will be net of the cost of the premium payable to the seller. The seller of options may generate a gain from the premium.

C. WHAT ARE THE RISKS OF INVESTING IN OPTIONS?

Risks related to the purchase of call and put options – the value of an option is reduced if, in the case of a call option, there is a fall in the market price of the underlying asset or, in the case of a put option, the price rises. The value of the option may fall as the expiration date approaches, while the market value of the underlying remains the same or fluctuates in a manner in principle favourable to the buyer of the option. This loss of value of the option is due to the passing of time and/or the adverse trend shown by market supply and demand. For this reason, the buyer must bear in mind that the value of the option diminishes as the expiration date approaches and may reach zero in respect of at-the-money or out-of-the-money options. In those circumstances, the maximum loss is equal to the amount of the premium initially paid. If the underlying is itself a derivative (e.g. a future, an option or a swap), after the option has been exercised, both the seller and the buyer are exposed to the risks inherent in this derivative.

Risks related to the sale of options – when you sell an option, the risk is considerably greater than when you are a buyer. You may be liable for margin payments to maintain your position and you may sustain a loss well in excess of the premium you received. The seller must anticipate the possibility that the buyer may exercise its right, even if the intrinsic value of the option is at-the-money or out-of-the-money. In the case of American-style options, the seller must also be prepared for the possible exercise of that right by the buyer at any time during the life of the option. In addition, if the underlying is itself a derivative, after the option has been exercised, both the seller and the buyer are exposed to the risks inherent in this derivative.

Covered call options – a call option is covered if the investor owns a corresponding quantity of the underlying equivalent to the size or nominal amount of the option contract. If the current market value of the underlying exceeds the strike and, consequently, the buyer of the call option exercises the option, the seller of the option is deprived of the gain corresponding to the increase in the underlying which must be delivered. If the current market value of the underlying does not exceed the strike, the seller of the option does not incur any loss on

the option, but nevertheless remains fully exposed to the risk related to any fall in price of the underlying. In the event that, throughout the life of the option, all or part of the underlying owned by the seller is required to be used as collateral for the option, the only way in which the seller of the option can sell the underlying in order to avoid a future loss is by repurchasing the option.

Uncovered call options – if the seller of a call option does not own the corresponding quantity of the underlying, the call option is described as uncovered. In the case of options with physical settlement, the potential loss is the difference between the strike paid by the buyer and the price the seller must pay to purchase the underlying in the market, if the buyer exercises the option. Where an option with cash settlement is involved, the potential loss is equivalent to the difference between the strike and the market value of the underlying. Since the market value of the underlying may far exceed the strike when the option is exercised, the maximum potential loss cannot be determined in advance and is theoretically unlimited.

In particular, the seller of an American-style option that requires physical settlement of the underlying must bear in mind that the option may be exercised in highly adverse market conditions and that, depending on the circumstances, it may prove difficult, if not impossible, to acquire the underlying asset in order to deliver it.

The seller must be aware that the potential loss may far exceed the amount of the collateral or “margin” provided.

Put options – the seller of an American-style put option with physical settlement is obliged to purchase the underlying at the strike if the buyer exercises the option, even though it may be difficult or impossible to sell the underlying received and substantial losses may be incurred.

The seller’s potential loss may be significantly greater than the amount of the collateral or “margin” provided. The maximum potential loss for each option sold is limited to the strike less the premium received.

Combined Contracts – Given the numerous different possible combinations, the risks inherent in each individual contract may be a combination of several specific risks described in this Risk Disclosure Booklet. It is therefore not possible to provide a more detailed description.

In a combined contract, the closure of one or more specific components may considerably alter the overall risk related to the position.

Risks related to margin calls – if the investor sells an uncovered option, the investor will be required to provide collateral or “margin” for the entire life of the contract. The margin is set by the Bank and/or exchange to protect against a possible default by the investor, and may consist of the underlying asset, cash or other collateral. If margin proves to be insufficient, the investor may be required to provide additional collateral in response to a “margin call”. If the investor does not provide the required margin in response to the margin call then the option may be liquidated at a time which may be disadvantageous to the investor. This may result in loss of all margin and loss of the entire investment even where the investment would otherwise have been profitable had it not been liquidated.

Counterparty risk – the investor is exposed to the potential failure of the counterparty to perform the contract and to the insolvency of the counterparty.

D. WHAT ARE CAPS AND FLOORS?

Cap

When a party undertakes to make interest payments based on a floating interest rate on pre-determined payment dates, it may wish to limit its exposure to the fluctuations of the interest rate by entering into a cap. A cap agreement provides the buyer of the cap, in return for payment of the premium, with a guarantee against any excess over a maximum interest rate during a particular period. The seller of the cap undertakes to pay to the buyer a fixed amount which corresponds to the interest payment which the buyer would be required to make in respect of the portion of the floating rate that exceeds the cap set by the cap agreement.

Risks of Caps – it is possible that the reference floating rate does not exceed the cap rate during the life of the agreement. The investor who purchases a cap therefore incurs the risk of having to pay a premium which is non-refundable at the expiration of the cap transaction, so that the investor would have been in a better economic position if the investor had not entered into the cap transaction.

By contrast, the risk of loss of the investor is unlimited in case the investor sells a cap, insofar as such risk corresponds to the payments that the investor will be required to make if the reference floating rate exceeds the cap rate.

Floor

The floor offers protection against a fall in interest rates that is similar to that offered by a cap in relation to an increase in interest rates. A floor agreement provides the buyer of the floor, against payment of the premium, with a guarantee against any fall below a minimum interest rate during a particular period. The seller of a floor undertakes to pay to the purchaser the amount of interest which corresponds to the difference between the floor set by the floor agreement and the interest rate prevailing on the market.

Risks of Floors – the investor who purchases a floor incurs the risk of having to pay a premium which can prove unnecessary at the expiration of the floor transaction if the reference rate has not fallen below the floor fixed by the floor agreement during the life of the agreement.

The risk of loss of the investor who sells a floor is theoretically unlimited if the reference rate falls below the floor, although it would be unusual for interest rates to fall below zero.

10. FORWARD CONTRACTS

A. WHAT IS A FORWARD CONTRACT?

Under a forward contract, two parties commit to exchange a fixed quantity of an underlying against a cash amount, on a precise date (the maturity date), at a price agreed at the start of the contract. Unlike options which only represent a right to exercise, forward contracts give rise to obligations for both parties. Forward contracts do not require the payment of a premium at the start of the contract.

Depending on the circumstances, the underlying(s) may include shares, bonds, commodities or precious metals, reference rates or other references (e.g. interest rates, currencies or indices).

There are different types of forward contracts. Futures are traded on an exchange. They take the form of contracts in which the quantity of the underlying (called the size of the contract) and the maturity dates are standardised. "Over-the-counter" ("OTC") forward contracts are not traded on an exchange and entail specific terms individually agreed between the buyer and the seller.

Forward contracts require initial margin and variation margin. The "initial margin" is specified when the contract is initiated, whether the investor is the purchaser or the seller under the forward contract. Such initial margin is expressed either as an absolute amount or as a percentage of the size of the contract. In addition, "variation margin" is calculated periodically throughout the entire life of the contract, generally on a daily basis. This reflects the book profit or loss arising from a change in the value of the underlying. The variation margin may ultimately amount to a sum several times greater than that of the initial margin. The detailed procedure for calculating the variation margin is specified in accordance with the exchange rules and practice or specific contract terms applying in each case. Throughout the life of the contract, an investor must maintain margin equal to the sum of the initial and variation margins required.

An investor may, in principle, close or liquidate the contract at any time prior to the maturity date. The closing of the contract is dependent on the type of contract and/or the rules and practice of the exchange. The investor can either sell the contract or agree an offsetting trade with identical terms. Concluding such an offsetting trade means that the obligations to deliver and receive cancel each other out. The parties to the contract are bound to honour the obligations arising from the contract which have not been closed or offset prior to their expiration date. The following principles apply in such circumstances:

- If the underlying of the contract is a physical asset, settlement is achieved by physical delivery. Only in exceptional cases do the contract provisions or the rules and practice of the exchange call for cash settlement. All other fulfilment specifications, especially the definition of the place of fulfilment, can be found in the relevant contract provisions.
- The difference between physical delivery and cash settlement is that with physical delivery underlying(s) in the quantity specified by the contract must be delivered, whereas with cash settlement only the difference between the agreed price and the market value on settlement must be paid. This means that the investor requires more funds to be available for physical delivery than for cash settlement.
- If the underlying of the contract is a reference rate or benchmark, fulfilment by physical delivery is not permitted. Instead, settlement is always in cash.

B. HOW DOES INVESTING IN FORWARD CONTRACTS REWARD INVESTORS?

A forward contract can offer an investor the possibility of eliminating any uncertainty about the future price of an asset (such as a stock or bond). If the expected future price of an asset increases over the life of the forward contract the right to buy the asset at the contract price will have positive value for the investor who will at the end of the contract pay less for receiving the asset than its market value. The opposite is however also true if the expected future price decreases over the life of the contract.

C. WHAT ARE THE RISKS OF INVESTING IN FORWARD CONTRACTS?

Depending on the change in the value of the underlying throughout the life of the contract, the risks are as follows:

Risks related to forward sales – for forward sales, the investor must deliver the underlying at the price originally agreed even if its market value has since risen above the agreed price. In such a case, the investor risks losing the difference between these two amounts. Theoretically, there is no limit to how far the market value of the underlying can rise. Hence, the potential losses are similarly unlimited and can substantially exceed the margin provided.

Risks related to forward purchases – for forward purchases, the investor must take delivery of the underlying at the price originally agreed even if its market value has since fallen below the agreed price. The potential loss corresponds to the difference between these two values. The maximum loss therefore corresponds to the originally agreed price. Potential losses can substantially exceed the margin required.

Price limit risk – in order to limit price fluctuations, an exchange may set price limits for certain contracts. The investor should take the necessary steps to determine what price limits are in place before effecting forward or futures transactions. This is important since closing out a contract can be much more difficult or even impossible if a price limit of this type is reached.

Short selling risk – if the investor sells forward an underlying which the investor does not hold at the outset of the contract, this is referred to as a short sale. In this case, the investor runs the additional risk of having to acquire the underlying at an unfavourable market value in order to fulfil the investor's obligation to effect delivery on the contract's maturity date. Furthermore, short sales may be banned or subject to specific restrictions and/or reporting requirements on certain markets. Consequently, before entering into a forward contract, the investor should establish whether any such fluctuation limits exist.

Margin call risk – forward contracts require the investor to provide collateral or "margin" for the entire life of the contract. The margin is determined by the Bank and/or exchange in its sole and absolute discretion to protect against a possible default by the investor, and may consist of the underlying asset, cash or other collateral. If margin proves to be insufficient, the investor may be required to provide additional collateral in response to

a "margin call". If the investor does not provide the required margin in response to the margin call then the forward contract may be liquidated at a time which may be disadvantageous to the investor. This may result in loss of all margin and loss of the entire investment even where the investment would otherwise have been profitable had it not been liquidated.

Special risks related to over-the-counter (OTC) contracts – OTC forward contracts are not transacted on a market, since they are a private contract between the buyer and the seller. Consequently, they can only be closed out by agreement with the same contracting party or neutralised by entering into an identical inverse contract with another contracting party (if available) enabling the market risk to be eliminated (but not the credit risk on the counterparties). Early closure of such contract may consequently turn out to be impossible, or only possible under very unfavourable conditions. In both cases, there may be a very significant loss for the investor.

Counterparty risk – the investor is exposed to the potential failure of the counterparty to perform the contract and to the insolvency of the counterparty.

11. SWAPS

A. WHAT IS A SWAP?

In general terms, a swap transaction is a contract pursuant to which the parties exchange a series of cash flows which are calculated by reference to an "underlying" (such as equity indices, bonds, currencies, interest rates or commodities, or intangible items such as weather). The types of swaps continue to expand as new products are regularly developed.

B. HOW DOES INVESTING IN A SWAP REWARD INVESTORS?

Swaps can be used by investors to protect against an adverse outcome of the economy (interest rates, currency or stock market rise or fall). If for example an investor who entered into a loan and has to pay a floating rate (e.g. SOFR / EURIBOR) every quarter during two years thinks that interest rates will increase in the near future the investor may want to enter into an interest rate swap transaction where the investor will pay a fixed rate while receiving SOFR / EURIBOR. If SOFR / EURIBOR rises, the investor will still pay the same rate (the fixed interest rate) and will have mitigated the interest rate risk linked to the loan.

C. WHAT ARE THE RISKS OF INVESTING IN SWAPS?

There are four main categories of swaps: Cross Currency Swaps, Interest Rate Swaps, Equity Swaps and Credit Default Swaps.

CROSS CURRENCY SWAPS

The underlying consists of currencies. A cross currency swap contract may include:

(i) an exchange of the principal amounts in two different currencies at the inception of the contract, i.e. one party agrees to pay a fixed amount (the principal amount) expressed in one currency against receipt from the counterparty of an equivalent amount in the other currency (the "initial exchange");
(ii) a periodic exchange of interest payments on specified dates, e.g. one party pays a floating rate calculated in the second currency while receiving a fixed rate on the first currency from the counterparty; and
(iii) the repayment of the principal amount by each party, usually at a pre-determined foreign exchange rate, at the termination date of the contract (the "final exchange").

Unlike other swap transactions, cross currency swaps may involve the physical exchange of the principal amounts, although in certain circumstances parties may omit stages (i) and (iii), and the cross currency swap will simply consist of stage (ii) above.

WHAT ARE THE RISKS OF INVESTING IN CROSS CURRENCY SWAPS?

The risk of loss for the investor is mainly linked to the movements in the underlying foreign exchange rate. Unfavourable movements in this rate will impact both initial and final exchanges, as well as the exchange of interest payments.

INTEREST RATE SWAPS

The underlying is an interest rate calculated by reference to a notional amount.

An interest rate swap consists of an exchange of a series of cash flows which are denominated in the same currency and calculated by reference to a notional principal amount. This amount is a notional amount in that it is not physically exchanged but is exclusively used for the purpose of calculating the cash flows. Each party undertakes to pay, on one or several pre-specified dates, an amount equal to the reference rate times the notional amount during the relevant reference period. At the inception of the transaction, the parties agree upon the different interest rates which they wish to pay/receive under the swap transaction.

In a fixed/floating swap, one party agrees to make interest payments based on a fixed rate of interest, e.g. 3%, while the other party agrees to make payments on the basis of a floating rate, e.g. SOFR plus a margin. In a "basis swap", both parties agree to pay a floating rate but defined on a different basis, e.g. one party may pay a floating 3 months EURIBOR rate while the other party pays a floating rate for another reference period.

RISKS OF INVESTING IN AN INTEREST RATE SWAP

Interest rates may move in a direction opposite to the one envisaged by the investor at the time of entering into the swap. For example, if the investor agrees to make payments on the basis of a fixed rate and the floating rate becomes lower than the fixed rate, the investor will pay an excess amount to the other party (corresponding to the difference between the fixed rate and the floating rate). If the investor undertakes to pay a fixed rate, the risk of loss will be limited to the amount of the payments calculated on the basis of the fixed rate, while the risk of loss is unlimited if the investor undertakes to pay a floating rate.

Investors often enter into interest rate swaps in order to hedge their exposure to the fluctuation of floating rates applicable to an underlying loan transaction. Whether or not the swap counterparty of the investor is also the lending bank, the swap and the loan transactions are subject to different contractual terms and the swap will not necessarily be unwound or terminated if the underlying loan is repaid. The investor should consider whether the expiration date of the swap corresponds to the maturity of the loan transaction. If the investor prepays the loan in advance, the investor may face the costs of having to unwind or continue the outstanding swap transaction. Furthermore, the swap transaction will cease to be a hedge once the loan is prepaid, thereby potentially representing a speculative position.

EQUITY SWAPS

Under an equity swap the parties make a series of periodic payments calculated by reference to the evolution of the price of the underlying equity over the relevant reference periods.

One party (the "upside payer") agrees to pay an amount calculated by reference to any increase in the equity price while the other party (the "downside payer") agrees to pay an amount calculated by reference to any decrease in the equity price. Typically, the downside payer will also pay a floating amount calculated by reference to a notional principal. Depending upon the precise terms of the contract, the upside payer may also pay to the downside payer an amount equal to the dividend which the upside payer would have received had it been the actual owner of the equities.

RISKS OF INVESTING IN AN EQUITY SWAP

In an equity swap the events which can impact the underlying equity and its market price will affect the return to the investor. For example, the underlying equity may be suspended, delisted or adjusted. The company issuing the underlying equity may become insolvent, merge with or be subject to a takeover by another company, be nationalised or fail to declare a dividend. Furthermore, when the investor enters into an equity swap as an upside payer, if the investor does not own the underlying equity, the investor will incur a potentially unlimited risk of loss, since there is no upside limit to the market price of an equity.

CREDIT DEFAULT SWAPS ("CDS")

A credit default swap or "CDS" is an agreement between two parties whereby the protection buyer will pay to the protection seller a series of regular fixed payments over the life of the CDS calculated on the basis of a notional amount. In return the protection buyer receives protection against a credit event occurring on the reference entity or certain of its debt obligations as defined in the CDS.

If a credit event occurs and certain other conditions are satisfied, the protection buyer will, if the transaction is physically settled, deliver certain debt obligation(s) of the reference entity to the seller in exchange for payment of the outstanding principal balance, or, if the transaction is auction or cash settled, receive a cash payment based on the reduction in value of certain debt obligation(s).

RISKS OF INVESTING IN A CREDIT DEFAULT SWAP

The terms of a CDS and the related documentation are highly complex. There are significant risks associated with CDSs including, but not limited to, foreign exchange risk, price risk, liquidity risk and credit risk.

ADDITIONAL RISKS RELATING TO SWAP TRANSACTIONS

The risks relating to swaps vary depending upon the circumstances listed below:

- the selection of the currencies that are exchanged in a swap and the relationship between such currencies;
- the rates selected in the case of a swap involving an exchange of interest rates: fixed/floating, floating/floating or fixed/fixed, and the relationship between these rates;
- the price volatility of the underlying;
- the precise rate at which the parties agree to swap the various cash-flows;
- the duration of the contract (i.e. starting date, period(s) and termination date);
- whether certain terms of the transaction do or do not include averaging (as averaging reduces both the risks and the rewards associated with extreme outcomes);
- the sources used to calculate interest rates or foreign exchange rates or the price of equities (such sources may be suspended, modified, discontinued, or subject to a market disruption event); and
- whether the swap is being used to hedge an exposure to the underlyings (the swap may not be a perfect or adequate hedge).

Counterparty risk – the investor is exposed to the potential failure of the counterparty to perform the contract and to the insolvency of the counterparty.

SWAPTIONS

A swap transaction may also be combined with an option. For example "swaptions" are transactions that give the purchaser of the swaption the right, against payment of a premium, to exercise or not to exercise, until the agreed expiration date, the right to enter into a pre-agreed swap contract.

Risks of investing in swaptions will be a combination of any of those relating to swaps and options.

12. COMMODITIES

A. WHAT ARE COMMODITIES?

Commodities generally refer to assets such as oil, cocoa, corn and copper. They can comprise both (i) "physical" commodities, which need to be stored and transported, and which are generally traded at a "spot" price, and (ii) commodity contracts, which are agreements either to (a) buy or sell a set amount of an underlying physical commodity at a predetermined price and delivery period, or (b) make and receive a cash payment based on changes in the price of the underlying physical commodity.

Commodity contracts may be traded on regulated specialised futures exchanges (such as futures contracts). Commodity contracts may also be traded directly between market participants "over-the-counter" on trading facilities that are subject to lesser degrees of regulation or, in some cases, no substantive regulation. Accordingly, trading in such "over-the-counter" contracts may not be subject to the same provisions as, and the protections afforded to, contracts traded on regulated

specialised futures exchanges, and there may therefore be additional risks related to the liquidity and price histories of the relevant contracts.

B. HOW DOES INVESTING IN COMMODITIES REWARD INVESTORS?

When the economy is flourishing, goods and commodity prices tend to increase. An investor investing in commodities might be able to take profit of their price increase that will offset partially or completely the increase in inflation. Moreover, commodities tend to have a negative correlation to traditional asset classes (fixed income, equities), meaning that when one asset class has a low value, the other will tend to have a high value, increasing the diversification of the portfolio. Therefore investors may want to invest in commodities as a way of hedging their portfolio against inflation or as a way of lowering the risk in the portfolio by adding commodities as an asset class for diversification. However, commodities are a risky asset class and frequently may not exhibit these characteristics due to a number of factors. Some of the risks of investing in commodities are highlighted below.

C. WHAT ARE THE RISKS OF INVESTING IN COMMODITIES?

Volatility risk – trading in commodities is speculative and may be extremely volatile. Commodity prices are affected by a variety of factors that are unpredictable including, for example, changes in supply and demand relationships, weather patterns and extreme weather conditions, governmental programmes and policies, national and international political, military, terrorist and economic events, fiscal, monetary and exchange control programmes and changes in interest and exchange rates. Commodity prices can go down as well as up and historical market prices are not necessarily indicative of any future price movements. Commodities markets are subject to temporary distortions or other disruptions due to various factors, including lack of liquidity, the participation of speculators and government regulation and intervention. These circumstances could also adversely affect prices of the relevant commodity. Therefore, commodity prices may be more volatile than other asset classes and investments in commodities may be riskier and more complex than other investments. Some of the factors affecting the price of commodities and other risks relating to the volatile nature of commodities are as follows:

- **Supply and demand** – commodities are typically considered a finite rather than a renewable resource. If supplies of a commodity increase, the price of the commodity will typically fall and vice versa. Similarly, if demand for a commodity increases the price of the commodity will typically increase and vice versa. The planning and management of commodity supplies is time-consuming so it is not always possible to adjust production swiftly to take account of demand. Demand can also vary on a regional basis. Transport costs for commodities in regions where they are needed also affect prices. Substitutes for certain commodities may also become more accepted over time which may result in a decrease in the demand for, and price of, commodities. Furthermore, the recent growth of investment products offering investors an exposure to commodities may significantly change the supply and demand profile of the market as changes in supply and demand for such investment products will directly impact on the market for the underlying commodity. This may increase volatility in the price and supply of the relevant commodity.
- **Liquidity** – not all markets in commodities are liquid and able to quickly and adequately react to changes in supply and demand. The fact that there are only a few market participants in certain commodities markets means that speculative investments can have negative consequences and may distort prices.
- **Natural disasters** – the occurrence of natural disasters can influence the supply of certain commodities, which can lead to severe and unpredictable price fluctuations.
- **Direct investment costs** – direct investments in commodities involve storage, security, insurance and tax costs. Moreover, no interest or dividends are paid on commodities. The returns from investments in commodities are influenced by these factors.
- **Location** – commodities are often produced in emerging market countries, with demand coming principally from industrialised nations. The political and economic situation in many emerging market countries lacks stability. Political crises can affect purchaser confidence and, in turn, affect commodity prices. Armed conflicts can also impact on the supply and demand for certain commodities. It is also possible for industrialised nations to impose embargos on imports and exports of goods and services which can impact commodity prices. Furthermore, commodity producers may establish organisations or cartels to regulate supply and influence prices.
- **Tax rates** – changes in tax rates and customs duties may have a positive or a negative impact on the profit margins of commodities producers. When these costs are passed on to purchasers, these changes will affect prices.
- **Exchange and interest rates** – changes in exchange rates and interest rates may have a positive or negative impact on the price, demand, production and direct investment costs of commodities and the returns from investments in commodities are therefore influenced by and may be correlated to these factors. Furthermore, the reference price for the relevant commodity may be denominated in a currency other than the currency of the payments under a transaction. In such case, the parties will be exposed to fluctuations between the two currencies. Such exchange rate fluctuations may result in gains or losses for either party.
- **Market disruption** – any disruption to the over-the-counter market or the primary exchange or trading facility for trading of the relevant commodity can affect the price. Markets, exchanges and trading facilities may suffer from market disruption, due to trading failures or other events which could result in a failure to price the commodity. This may result in non-calculation and non-publication of such price.
- **Large-scale distressed sales** – large scale-distressed sales of commodities in times of crisis may have a short to medium term effect on the price of the commodity.
- **National and supranational organisations** – central banks, other government agencies and supranational organisations that buy, sell and hold commodities as part of their reserve assets may decide to sell a portion of their assets, which are not normally subject to use in the open market. Such sales may create a glut of supply over demand, leading to a lower price on the open market. Further, as the price of some commodities are correlated to some extent, a significant sale of one commodity could lead to a decline in the market price of other commodities.

Risks relating to commodity linked securities – Commodity linked securities which are linked to commodity futures contracts may provide a different return than commodity linked securities linked to the relevant physical commodity and will have certain other risks. The price of a futures contract on a commodity will generally be at a premium or at a discount to the spot price of the underlying commodity. This discrepancy is due to such factors as (i) warehousing, transport and insurance costs and other related expenses being taken into account in the futures contract price and (ii) different methods being used to evaluate general factors affecting the spot and the futures markets. In addition, and depending on the commodity, there can be significant differences in the liquidity of the spot and the futures markets. Accordingly, commodity linked securities which are linked to commodity futures contracts may provide a different return than commodity linked securities linked to the relevant physical commodity.

Investments in futures contracts involve certain other risks, including potential illiquidity – A holder of a futures position may find that such position becomes illiquid because certain commodity exchanges limit fluctuations in such futures contract prices pursuant to "daily limits". Once the price of a particular futures contract has increased or decreased by an amount equal to the daily limit, positions in the contract can neither be taken nor liquidated unless holders are willing to effect trades at or within the limit. This could prevent a holder from promptly liquidating unfavourable positions and subject it to substantial losses. Futures contract prices in various commodities occasionally have exceeded the daily limit for several consecutive days with little or no trading. Any such losses in such circumstances could have a negative adverse effect on the return of any securities referencing the affected futures contract.

In the case of a direct investment in commodity futures contracts, the invested capital may be applied in whole or in part by way of collateral in respect of the future claims of the respective counterparties under the commodity futures contracts. Such capital will generally bear interest and the interest yield will increase the return of the investor making such direct investment. However, holders of securities linked to the price of commodity futures contracts (rather than the total return) do not participate in such interest yields from the hypothetical fully collateralised investment in commodity futures contracts.

Risk relating to the "rolling" of commodity futures contracts – commodity contracts have a predetermined expiration date, i.e. a date on which trading of the commodity contract ceases. Holding a commodity contract until expiration will result in delivery of the underlying physical commodity or the requirement to make or receive a cash settlement. Alternatively, "rolling" the commodity contracts means that the commodity contracts that are nearing expiration (the "near-dated commodity contracts") are sold before they expire and commodity contracts that have an expiration date further in the future (the "longer-dated commodity contracts") are purchased. Investors in commodities apply "rolling" of the component commodity contracts in order to maintain an ongoing exposure to such commodities.

"Rolling" can affect the value of an investment in commodities in a number of ways, including:

- The investment in commodity contracts may be increased or decreased through "rolling": Where the price of a near-dated commodity contract is greater than the price of the longer-dated commodity contract (the commodity is said to be in "backwardation"), then "rolling" from the former to the latter will result in exposure to a greater number of the longer-dated commodity contract being taken. Therefore, any loss or gain on the new positions for a given movement in the prices of the commodity contract will be greater than if one had synthetically held the same number of commodity contracts as before the "roll". Conversely, where the price of the near-dated commodity contract is lower than the price of the longer-dated commodity contract (the commodity is said to be in "contango"), then "rolling" will result in exposure to a smaller number of the longer-dated commodity contract being taken. Therefore, any gain or loss on the new positions for a given movement in the prices of the commodity contract will be less than if one had synthetically held the same number of commodity contracts as before the "roll".
- Where a commodity contract is in contango (or, alternatively, backwardation) this may be expected to (though it may not) have a negative (or, alternatively, positive) effect over time: Where a commodity contract is in "contango", then the price of the longer-dated commodity contract will generally be expected to (but may not) decrease over time as it nears expiry. In such event, rolling is generally expected to have a negative effect on an investment in the commodity contract. Where a commodity contract is in "backwardation", then the price of the longer-dated commodity contract will generally be expected to (but may not) increase over time as it nears expiry. In such event, the investment in the relevant commodity contract can generally be expected to be positively affected.
- In the case of commodity linked securities which are linked to a commodity contract, the referenced commodity contract will simply be changed without liquidating or entering into any positions in the commodity contracts. Accordingly, the effects of "rolling" described above do not apply directly to the reference asset and the securities. Thus, an investor will not participate directly in possible effects of "rolling". However, other market participants may act in accordance with the mechanism of "rolling" and such behaviour may have an indirect adverse impact on the value of the reference asset of the securities.
- Commodity indices are indices which track the performance of a basket of commodity contracts on certain commodities, depending on the particular index. The weighting of the respective commodities included in a commodity index will depend on the particular index and the index rules governing that index. Commodity indices apply "rolling" of the component commodity contracts in order to maintain an ongoing exposure to such commodities. Specifically, as a commodity contract is required to be rolled pursuant to the relevant index rules, the commodity index is calculated as if exposure to the commodity contract were liquidated and exposure were taken to another (generally longer-dated) commodity contract for an equivalent exposure. Accordingly, the same effects as described above with regard to "rolling" on the value of a commodity reference asset also apply with regard to the index level of a commodity index.

Regulatory and legal risk – Commodity linked securities are subject to legal and regulatory regimes that may change in ways that could affect the ability of the issuer and/or any entities acting on behalf of the issuer engaged in any underlying or hedging transactions in respect of the issuer's obligations in relation to any commodity linked securities to hedge the issuer's obligations under the securities, and/or could lead to the early redemption

of the securities. Any such early redemption may adversely affect the return on the securities. Commodities are subject to legal and regulatory regimes in the United States and, in some cases, in other countries that may change in ways that could negatively affect the value of the securities. Changes in laws and regulations will most likely increase the costs associated with the trading of futures contracts and limit the size of positions that can be held by traders. These factors could in turn result in reductions in market liquidity and increases in market volatility, which could adversely affect the performance of the futures contracts and/or underlying commodities and of securities referencing them.

Custodian/ sub-custodian risk of unallocated bullion – in respect of an OTC bullion derivative transaction which involves delivery of unallocated bullion, there will be no physical delivery of the bullion and the resulting unallocated bullion rights will be evidenced by an entry on the investor's notional bullion account with JPMS. Such unallocated bullion rights are held by the investor against JPMS (JPMS in turn has the rights against the relevant custodian (who may be an affiliate of JPMS or a third party) in respect of any unallocated bullion held by the custodian (or any applicable sub-custodian) for JPMS). Accordingly, the investor also takes credit risk on the custodian or sub-custodian. In the event of a default on such obligations or the insolvency of the custodian or sub-custodian during the tenor of the OTC bullion derivative transaction, the investor may get nothing back and suffer a total loss of their investment.

Custodian/ sub-custodian risk of allocated bullion – where we take custody of allocated bullion on an investor's behalf, the bullion will be physically held in an allocated precious metals account held with a third party by JPMS on the investor's behalf. The bullion credited to an allocated account gives rise to proprietary rights in such allocated bullion for the investor.

Where such a structure is adopted, the investor is exposed to the following risks:

- If the investor asks JPMS to allocate previously unallocated bullion and JPMS, the custodian or any sub-custodian fails to allocate the bullion in a timely manner or in a proper amount, then such bullion shall remain unallocated and the investor would be an unsecured creditor in the event of an insolvency of JPMS or the custodian or any sub-custodian.
- If JPMS, a custodian or any sub-custodian becomes insolvent, a liquidator may also seek to freeze access to any allocated bullion and even though title could be properly ascertained to belong to the investor, the investor could incur expenses in connection with asserting such claims.
- JPMS does not independently confirm the fineness or weight of the relevant bullion held in an allocated account with any third party custodian or sub-custodian. Such bullion may be different from the reported fineness or weight required by the relevant standards and any shortfall in the required fineness or weight of allocated bullion may adversely affect the value of the bullion.
- All allocated bullion will be held by a third party custodian or Affiliates in its vaults in London, New York, Singapore or Zurich. Access to such bullion could be restricted by, without limitation, natural events, such as earthquakes or human activities, such as political protests or terrorist attacks.
- If JPMS is required to make payments in respect of value added tax as a consequence of it acquiring or holding bullion on the investor's behalf, then the investor will be liable to pay an equivalent amount to JPMS as prescribed in the Private Client Terms.

JPMS reliance on third parties – JPMS is not a member of The London Bullion Market Association (the "LBMA") or The London Platinum and Palladium Market (the "LPPM") and does not have its own vaults for holding Precious Metal but, where relevant, maintains arrangements (including with respect to the custody of Precious Metal) with members of LBMA and LPPM.

JPMS and/or any relevant third party member of the LBMA or LPPM (as appropriate) prepare and maintain records with respect to bullion accounts. To the extent that there are errors (including computer system failures and/or human error) then in the event of an insolvency of JPMS and/or any relevant third party it may be difficult to determine the accuracy of any such records or such determination may take significant time.

Neither JPMS nor any relevant third party member of the LBMA or LPPM, as appropriate, has any responsibility to maintain insurance in connection with the bullion business. Whilst JPMS or such third party may, in its sole discretion, maintain insurance in relation to bullion, any such insurance may not cover all the potential risks and may be subject to a cap. It is the responsibility of the investor to maintain adequate insurance against such risks as it deems appropriate.

Investment in Unallocated and Allocated Bullion - Where Unallocated Bullion is credited to your Custody Account, such credit of Unallocated Bullion does not confer any proprietary rights in the relevant Precious Metal; instead such credit records the amount of the relevant Precious Metal which we have a contractual obligation to transfer to you, subject to the terms of the Private Client Terms and any other written agreement between you and us. Where you wish to purchase Precious Metal on an allocated basis, such deposited Precious Metal may take the form of Unallocated Bullion until such time as the Precious Metal has been credited to the relevant account or received by us or our Affiliate on an allocated basis. Until such time as the purchased Precious Metal qualifies as Allocated Bullion, you do not have any proprietary right, title and/or interest to such Precious Metal and you would be an unsecured creditor in the event of an insolvency of JPMS or the custodian or any sub-custodian.

13. EXCHANGE TRADED COMMODITIES

A. WHAT IS AN EXCHANGE TRADED COMMODITY?

Exchange traded commodities (''ETCs'') are debt securities that track the performance of single commodities, a basket of commodities, or a commodity index. ETCs are debt securities that trade on regulated exchanges. They offer investors exposure to either physical commodities without the need to take physical delivery, or exposure to the relevant underlying via derivatives. ETCs are passive investments and are not actively managed.

B. HOW DOES INVESTING IN EXCHANGE TRADED COMMODITIES REWARD INVESTORS?

ETCs provide investors with exposure to commodity prices which would otherwise be difficult to obtain. As ETCs aim to provide investors with returns that track the performance of commodities, investors investing in ETCs have the opportunity to benefit from any increases in the price of commodities although they could also suffer losses if the prices of those commodities fall.

C. WHAT ARE THE RISKS OF INVESTING IN EXCHANGE TRADED COMMODITIES?

In addition to the potential exposure to the general risks set out in Section 2 and in relation to those concerning ETFs mentioned in Section 3-4 (Investments in Regulated Funds), ETCs expose the investor to the following risks:

Credit risk – ETCs are debt securities and therefore a key risk is the risk that the issuer of the ETCs fails to repay some or all of the amount invested and/or interest payable on that amount, resulting in a loss to the investor.

Liquidity risk – where ETCs provide a synthetic exposure to a commodity through derivatives the obligations of the counterparty to such derivatives are typically collateralised, thereby reducing the counterparty risk. However, such collateral is not always liquid, might not be readily liquidated or liquidated at the expected price, and/or might not perform as desired. Further, when markets are generally illiquid, collateral held against a counterparty's obligations can also become illiquid, meaning that such risks can be dramatically increased. Ultimately, the level of counterparty exposure is at the discretion of the issuer. ETCs that offer a synthetic exposure to a commodity are considered more risky that ETCs that offer a physical exposure.

Tracking error risk – where the ETCs provide a synthetic exposure to a commodity through derivatives such derivatives might not always be effective in providing a performance that exactly tracks the relevant commodity. The performance of the ETCs can deviate from the performance of the relevant commodity.

Counterparty risk – the counterparty to the derivative may default on its obligations, which might result in the investor receiving none of the amount invested back, regardless of the performance of the underlying assets.

Leverage risk – some ETCs have unique compounded returns (positive or negative) and daily reset and leverage features that may significantly amplify risk, particularly for medium and long-term investors, and in periods of high market volatility.

14. REAL ESTATE

A. WHAT IS AN INVESTMENT IN REAL ESTATE?

Real estate investments are investments in land or anything constructed on a piece of land. These investments can range from residential and commercial buildings to hotels, shopping centres and warehouses.

B. HOW DOES INVESTING IN REAL ESTATE REWARD INVESTORS?

Investors can invest in real estate as a personal residence or to generate periodic income through rents and profits through price appreciation. Real estate is also contemplated as a way to hedge inflation.

C. WHAT ARE THE RISKS OF INVESTING IN REAL ESTATE?

Investing in real estate also potentially exposes the investor to the risks set out in Section 2 but in particular:

Market risk – the risks related to investments in real estate are linked to a decrease in the value and/or capacity of the real estate object to generate capital growth and income. Reasons can be (but are not limited to) the location of the investment, its degree of obsolescence and if competing facilities are located in the vicinity.

Interest rate risk – if a property is financed through a mortgage, interest rate movements can have an impact on the amount required to repay the mortgage, depending on the type of mortgage.

Liquidity risk – it may be difficult for the investor to liquidate the real estate investment when the investor wishes to do so or at all.

Pricing / valuation risk – the value of real estate investments is dependent on the market and can be affected by a number of matters such as the proposed or actual use of the real estate, local permissions for such use, supply of equivalent real estate in the relevant area, environmental factors and liabilities and costs such as maintenance costs, insurance costs and security costs.

15. INITIAL PUBLIC OFFERINGS ("IPO")

A. WHAT IS AN INITIAL PUBLIC OFFERING?

An initial public offering ("IPO") or new issuance is the operation via which an issuer offers, for the first time, its securities such as shares, preference shares or bonds (hereinafter the "securities") to the public. An IPO is usually, but not necessarily, accompanied by an application for a stock market listing of the securities being offered or a listing on another organised market such as the NASDAQ.

B. HOW DOES INVESTING IN AN IPO REWARD AN INVESTOR?

Investors investing in an IPO are hoping to be rewarded by an increase in the value of the security in which they have invested.

C. WHAT ARE THE RISKS OF INVESTING IN AN IPO?

Subscribing for securities at the time of an IPO is appropriate for informed investors, capable of assessing the precise nature and scale of the risks related to such transactions and of supporting the significant losses which may arise (losses which may include the whole of the capital initially invested). The specific risks are to a large degree dependent upon the legal and economic characteristics of each individual issuer. These risks are, in principle, described in the prospectus relating to the issuance and/or the listing of the securities offered during the IPO.

Liquidity and information risk – before the IPO, there is in principle no public market for the securities. In addition, at the time of the IPO, apart from the information contained in the prospectus, the market has no historical financial information on the issuer's financial performance. It is therefore not certain that, at the time of the IPO and/or after the IPO, the price of the securities will be determined under optimal conditions. This risk is increased because some stock exchanges or similar markets (such as NASDAQ, SIX New Market and Le Nouveau Marché) allow issuers, in particular those operating in the new technology sectors, to carry out an IPO despite the fact that they have only been in existence for a short time.

Pricing risk – as mentioned above, before the IPO, there is in principle no public market for the securities. The issue price of the securities offered at the time of the IPO is therefore the result of negotiations between the issuer and the securities dealers acting as underwriters or placement agents and is determined on the basis of a number of factors. Consequently, such price may differ from the market value or the price fixed on the stock exchange after the listing of the securities. The securities may therefore become more volatile.

Allocation risk – the offer of securities at the time of an IPO is limited to the number of securities included in the offer. Consequently, it is possible that at the time of the IPO the investor may not receive all or part of the securities for which the investor has subscribed. Moreover, the issue price of the securities offered at the time of the IPO may be, but does not have to be, determined notably on the basis of the number of securities subscribed for. It is therefore possible that, if the number of subscriptions is too high, the subscription price may be significantly higher than the market value or the quoted price of the securities after the IPO.

Volatility risk – after the IPO, the quoted price or the market value of the securities may be more volatile than that of other comparable companies, due in particular to the securities being less liquid, the market being more sensitive to certain events such as technological advances or new products from the issuer or its competitors, the departure of some key employees or the withdrawal of some historical shareholders and/or senior managers. Moreover, in the case of an IPO following a spin-off, some investors, who received securities at the time of such a spin-off, may decide for various reasons to readjust their portfolio and to sell the newly-issued security. The resulting over-supply may then affect the price of the securities over the first days or weeks after the IPO. This volatility may be exacerbated by the fact that some stock exchanges or similar markets (such as NASDAQ, SIX New Market and Le Nouveau Marché) enable issuers to carry out IPOs despite their low level of capitalisation or the limited amount of equity offered to the public ("free float").

Risk related to the presence of one or more main shareholder(s) – before the IPO, the issuer's shareholder base generally comprises a limited and fixed number of shareholders who control the company. After the IPO, these shareholders sometimes still have a significant holding, possibly even retaining control of the issuer. They can therefore control or significantly influence the direction and the management of the issuer, which may restrict the extent of the controlling and participation rights of the other shareholders (and therefore of the investor), or even make them totally ineffectual.

General risk related to investments in listed securities – after the IPO, apart from the risk relating specifically to the securities offered in IPOs, investments in securities will be subject to the general risks linked to any investment in listed securities, notably solvency risk, risks related to the price and liquidity of the shares and bonds, and exchange rate risk.

16. EMERGING MARKETS

A. WHAT IS AN EMERGING MARKET?

The term "emerging market" means a securities market in a country which is generally characterised by political instability, precarious financial markets, a potentially weak economy, a potentially challenging legal/regulatory environment and uncertainty concerning that country's economic development. Investments in emerging markets may be made via products whose structure and/or terms are non-standard and unusual. Such investments should be made by persons who are familiar with and accept the risks inherent in these markets.

B. HOW DOES INVESTING IN AN EMERGING MARKET REWARD INVESTORS?

Emerging markets can experience growth rates in excess of more developed markets. Investment in products that offer exposure to the emerging markets have the potential to provide investors with returns in excess of the returns that investors might expect from a product offering exposure to more developed markets. Consequently, investing in emerging market products exposes investors to greater risks (including the risk of some or all capital invested) than products that offer exposure to developed markets.

C. WHAT ARE THE RISKS OF INVESTING IN AN EMERGING MARKET?

Investments made in emerging markets entail specific risks which are not encountered in established markets, notably those described below (which may also arise when the issuer or provider of a product has its headquarters or primary focus of activity in an emerging market):

Political and economic risk – economic and/or political instability could lead to legal, fiscal and regulatory changes or the reversal of legal, fiscal, regulatory and/or market reforms. Assets could be compulsorily re-acquired without adequate compensation. A country's external debt position could lead to sudden imposition of taxes or exchange controls. High interest and inflation rates can mean that businesses have difficulty in obtaining working capital. Local management may be inexperienced in operating companies in free market conditions. A country may be heavily dependent on its commodity and natural resource exports and is therefore vulnerable to weaknesses in world prices for these products.

Legal risk – the interpretation and application of decrees and legislative acts can often be contradictory and uncertain particularly in respect of matters relating to taxation. Legislation could be imposed retrospectively or may be issued in the form of internal regulations not generally available to the public. Judicial independence and political neutrality cannot be guaranteed. State bodies and judges may not adhere to the requirements of the law and the relevant contract. There is no certainty that investors will be compensated in full or at all for any damage incurred. Recourse through the legal system may be lengthy and protracted.

Accounting practices – the accounting, auditing and financial reporting system may not accord with international standards. Even when reports have been brought into line with international standards, they may not always contain correct information. Obligations on companies to publish financial information may also be limited.

Shareholder risk – existing legislation may not yet be adequately developed to protect the rights of minority shareholders. There is generally no concept of any fiduciary duty to shareholders on the part of management. Liability for violation of what shareholder rights there are, may be limited.

Market and settlement risk – the securities markets in some countries lack the liquidity, efficiency and regulatory and supervisory controls of more developed markets. Lack of liquidity may adversely affect the ease of disposal of assets. The absence of reliable pricing information in a particular emerging markets security may make it difficult to assess it reliably. The share register may not be properly maintained and the ownership or interest may not be (or remain) fully protected. Registration of securities may be subject to delay and during the period of delay it may be difficult to prove beneficial ownership of the securities. The provision for custody of assets may be less developed than in other more mature markets and thus provides an additional level of risk. Settlement procedures may be less developed and still be in physical as well as in dematerialised form.

Price movement and performance risk – factors affecting the value of securities in some markets cannot easily be determined. Investment in securities in some markets carries a high degree of risk and the value of such investments may decline or be reduced to zero.

Currency risk – conversion into foreign currency or transfer from some markets of proceeds received from the sale of securities cannot be guaranteed. The value of the currency in some markets, in relation to other currencies, may decline such that the value of the investment is adversely affected. Exchange rate fluctuations may also occur between the trade date for a transaction and the date on which the currency is acquired to meet settlement obligations.

Taxation risk – investors should note in particular that the proceeds from the sale of securities in some markets or the receipt of any dividends and other income may be or may become subject to tax, levies, duties or other fees or charges imposed by the authorities in that market, including taxation levied by withholding at source. Tax law and practice in certain countries (in particular Russia and other emerging markets) is not clearly established. It is therefore possible that the current interpretation of the law or understanding of practice might change, or that the law might be changed with retrospective effect. As a result, investors may suffer losses due to the imposition of such taxes, levies, duties or other fees or charges.

Execution and counterparty risk – in some markets there may be no secure method of delivery against payment which would minimise the exposure to counterparty risk. It may be necessary to make payment on a purchase or delivery on a sale before receipt of the securities or, as the case may be, sale proceeds.

Ownership risk – the legislative framework in some markets is only beginning to develop the concept of legal/formal ownership and of beneficial ownership or interest in securities. Consequently, the courts in such markets may consider that any nominee or custodian as registered holder of securities would have full ownership of the relevant securities and that a beneficial owner may have no rights whatsoever in respect of such securities.

17. SECURITIES LENDING AND BORROWING

A. WHAT IS A SECURITIES LENDING TRANSACTION?

While the Bank does not currently engage in securities lending activity with clients, we may do so at some point in the future. In the meantime, we felt it important to describe securities lending transactions to clients as they may also form part of the investment strategies underlying a number of the investment products described in this Booklet.

A securities lending transaction involves the transfer of the title and of all rights related to certain securities by one party (the "lender") to the other party (the "borrower"). Such transfer is combined with the obligation of the borrower to return equivalent securities to the lender upon expiration of the transaction.

Depending on the circumstances and the parties involved, a securities lending transaction may be secured by collateral arrangements designed to secure the obligations of the borrower towards the lender. When collateral is agreed, it is generally provided to the lender in the form of cash, liquid and tradable securities, bank guarantees or letters of credit.

As a result of the transfer of the securities to the borrower, the borrower will receive all payments of interest, dividends and other distributions related to the securities lent. However, the borrower generally undertakes by contract to transfer the relevant distributions to the lender. Likewise, the lender is, as a rule, entitled to receive the benefits and income generated by the collateral, but assumes an obligation to transfer the relevant amounts to the borrower.

Furthermore, as a result of the transfer, the borrower is also entitled to exercise the voting rights and other similar rights related to shares lent.

A securities lending transaction may be entered into between the lender and the borrower either directly or through an intermediary, who may be acting in different capacities (in particular as counterparty or as agent). The risks of the lender and the borrower may vary depending on the manner in which the transaction is structured.

B. HOW DOES A SECURITIES LENDING TRANSACTION REWARD INVESTORS?

As remuneration for making securities available to the borrower, the lender has a right to a fee, the level of which will depend upon the conditions prevailing on the market. The borrower may use the securities for a variety of purposes including short selling and hedging derivatives obligations.

C. WHAT ARE THE RISKS OF LENDING AND BORROWING SECURITIES?

Risks related to the lending of securities

Counterparty risk – since a securities lending transaction involves an outright transfer of title to the securities to the borrower, the lender will lose the ownership of the relevant securities as soon as they are lent to the borrower. If the borrower fails to comply with its obligations to return equivalent securities at the expiration of the transaction, the lender will not recover a securities position equivalent to the lender's position prior to the execution of the transaction. As a result, the lender is exposed to the risk of losing all of the securities involved in a securities lending transaction.

Risk of insufficient collateral – if the collateral is not sufficient to cover the market value of the securities lent and the borrower fails to return the securities, then the lender is exposed to a risk of loss corresponding to the difference between the market value of the lent securities and that of the collateral. Collateral could be insufficient in the sense that its market value does not cover the value of the loan; alternatively, the collateral could be of poor quality.

Risk related to the return of securities (market risk) – securities lending transactions may be entered into either for a fixed period or for an unlimited period callable at any time. In most cases, the relevant agreements provide for a period of several days for the return of the securities to the lender following a request of the lender. If the value of the relevant securities decreases during this period, the lender will suffer a loss on the value of the lender's position.

Loss of the voting rights and impact of corporate actions related to shares lent – the securities lender will lose the ability to exercise the voting and other similar rights related to the securities lent to the borrower. Even if a securities lending agreement provides for the right of the lender to give instructions to the borrower with regard to the exercise of voting rights at shareholders' meetings, there can be no assurance that the borrower will indeed exercise the voting rights related to the shares lent in accordance with the lender's instructions.

Furthermore, a corporate action event may precipitate the need for the lender to recall the shares lent at short notice in order to make an election decision on a corporate action event.

Risk of not being registered again as the holder of registered shares – in the case of registered shares, the lender's name will generally be removed from the share register of the relevant company in accordance with applicable laws and regulations because the securities lending transaction involves an outright transfer of title to the relevant shares to the borrower. The lender will therefore need to apply to be registered again as the holder of the equivalent registered shares when they are returned by the borrower. The lender may, depending on the circumstances, encounter difficulties in obtaining registration in the share register of the company, in particular in the event that the lender's shareholding reaches certain thresholds.

Risks related to the borrowing of securities

Counterparty risk with regard to the collateral remitted – when the securities borrower is required to remit collateral to the lender in the form of either cash or tradable securities, the borrower will lose the title to the relevant cash or securities as soon as the cash or securities are remitted to the lender. The borrower will only have a contractual claim against the lender for the return of such collateral at the expiration of the securities lending transaction. If the lender is not able to return the collateral to the borrower upon expiration of the transaction, the borrower may lose the entire cash or tradable securities remitted as collateral to the lender.

A similar risk of loss of the collateral exists when the collateral is remitted in the form of letters of credit and/or bank guarantees. In such a case, if the lender exercises its rights related to the collateral, the borrower may be required to indemnify the issuer of the relevant letter of credit or bank guarantee and not be able to recover the relevant amounts from the lender.

Market risk related to the use of the securities borrowed – a securities borrower may pursue a large variety of purposes or strategies when borrowing securities. For example, a securities borrower may sell to a third party the securities lent by the lender with the objective of purchasing equivalent securities at a lower price on the date scheduled for the return of such equivalent securities to the lender, in order to benefit from a fall in the price of the securities. In this case, if the price of the relevant securities increases significantly between (i) the initial date of the borrowing of the securities from the lender (and the sale thereof to the third party) and (ii) the final date of the purchase of equivalent securities (and the return thereof to the lender), the securities borrower will be forced to purchase the relevant securities at a price significantly higher than the sales price received, which will generate a loss that may be unlimited.

Calls for additional collateral – when a securities borrower agrees to remit collateral to the lender, the value of such collateral must cover at all times during the entire life of the securities lending transaction the value of the securities lent

(plus, in many cases, a certain margin above such value). As a result, in case of an increase in the market value of the securities lent, a securities borrower may be required to provide additional collateral within extremely short deadlines following receipt of the corresponding margin calls from the lender. In such case, a securities borrower undertakes the risk, if the margin call requirements are not met, that the transaction will be terminated before its maturity date on unfavourable terms.

Risks common to the lending and the borrowing of securities
Risk of loss of the rights and distributions relating to the securities lent and collateral remitted – as the lending of securities entails an immediate transfer of ownership, the lender will lose all rights related to the securities including the right to receive any payments of interest, dividends or other distributions (e.g. bonus shares). The position is similar for the borrower in relation to securities collateral.

If the agreement entered into between the lender and the borrower does not provide for the right of the lender or the borrower to receive all interest, dividends and other distributions in respect of the securities lent or collateral remitted, respectively, or, where the agreement does provide for such an obligation, a party fails to comply with its contractual obligation to transfer the corresponding amounts to the other party, the latter may lose all benefits and income related to the securities lent or collateral remitted.

Settlement risk – the return to the lender of the securities lent and the return to the borrower of the collateral remitted generally occurs simultaneously on a "delivery-versus-payment" basis. However, if a mismatch or other difficulty occurs in the course of the exchange of the relevant securities and other assets, the lender or the borrower may incur a loss with regard to the equivalent securities or the collateral returned by the other party.

18. SHORT SELLING

A. WHAT IS A SHORT SALE?

While the Bank does not currently engage in short selling activity with clients, we may do so at some point in the future. In the meantime, we felt it important to describe short selling transactions to clients as they may also form part of the investment strategies underlying a number of the investment products described in this Booklet.

Short selling strategies may take several forms: (a) forward selling of assets, (b) borrowing assets combined with the immediate sale thereof, and (c) sales of futures. The characteristic common to all of these strategies is that they consist of (i) selling at a given price a given quantity of assets, such as shares, bonds, currencies, commodities or precious metals without actually being in possession of the quantity of the asset sold and (ii) subsequently acquiring the assets required to settle the short sale. The acquisition of the assets required for the settlement is carried out either via purchase or a securities borrowing (see Section 3-17, (Securities Lending and Borrowing)).

Types
A short selling strategy can be used in connection with transactions which can be executed immediately (spot transactions) or forward and futures contracts (see Section 3-10, (Forward Contracts)). A short selling strategy can also be implemented via the sale or issue of uncovered call options (see Section 3-9, (Options)). However, the sale of uncovered call options is subject to different risks from those inherent in spot or forward sales of assets.

In the case of a spot sale, the investor must borrow the assets which the investor has sold via a securities borrowing transaction. By contrast, in the case of a forward sale or an uncovered call option, the investor may fulfil the obligation to deliver the assets sold either via a securities borrowing or via the subsequent purchase of the assets in question.

Margin and/or guarantee required
Collateral or "margin" may be required when a short sale is concluded in the form of a forward or call option ("initial margin").

Additional margin ("variation margin") is calculated periodically throughout the life of the transaction and varies with any change in the price of the asset sold. This variation margin may be a multiple of the initial margin. The procedures for calculating the variation margin, throughout the life of the transaction or when it is closed, are determined by the relevant stock market rules or contractual specifications applicable to each case.

During the life of the transaction, the investor must maintain margin equal to the sum of the initial and variation margins. Failing this the position may be terminated.

If the investor borrows securities to obtain the assets needed to fulfil the obligation to deliver under the terms of the short sale, the lender may require guarantees from the investor which may vary in principle also depending upon the changes in the price of the asset in question as well as any changes in the value of the security provided by way of collateral.

Termination of positions
In principle, the investor may early terminate a short selling strategy. By concluding a reverse transaction, the investor crystallises the gain or loss on the short selling strategy.

Regulatory restrictions
Short sales may be banned or subject to certain specific restrictions and/or reporting requirements in certain markets or jurisdictions. Such limitations and/or duties may particularly apply to "naked" short sales, i.e. sales of securities that are not covered by a simultaneous securities borrowing transaction.

B. HOW DOES SHORT SELLING REWARD INVESTORS?

Short selling strategies are investment strategies based on an expected fall in the price of the asset. If the price at the outset of the transaction is greater than the price at the settlement date of the transaction, the investor makes a profit. However, if the price increases, the investor makes a loss which, theoretically, is unlimited.

C. WHAT ARE THE RISKS ASSOCIATED WITH SHORT SELLING?

Risk related to the variation in the upward movement of the price of the asset sold – at the settlement date of the transaction, if the investor does not hold the asset in question, the investor must buy it in order to be able to deliver it to the counterparty in execution of the investor's obligations under the terms of the short sale or the securities lending contract. If the price of the asset sold increases, the investor runs the risk of being obliged to buy the asset at a highly unfavourable price compared with the sale price in order to be in a position to honour the investor's sale commitment. For the investor, the risk is therefore the same as the difference between the sale price specified when the transaction was concluded and the purchase price by the investor of the asset sold.

As the purchase price may be exposed to a theoretically unlimited increase, the investor's potential for loss is unlimited. The investor must be aware that the potential loss may significantly exceed the collateral or "margin" deposited.

Closure hindered or impossible – in order to limit excessive price variations on certain securities, a stock exchange may specify fluctuation limits for certain transactions. In such cases, the investor must bear in mind that, once that fluctuation limit is reached, it may be temporarily impossible to proceed with transactions on some assets (where trading is suspended or "stopped trading"). The investor may not in this case purchase the asset sold, thus rendering impossible any closure of the short position or any settlement of the transaction. Consequently, before entering into a forward contract, the investor should establish whether any such fluctuation limits exist.

Risk related to margin calls – short selling strategies may require the provision of collateral or "margin" for the entire life of the contract. The margin is set by the Bank and/or exchange to protect against a possible default by the investor, and may consist of the underlying asset, cash or other collateral. If margin proves to be insufficient, the investor may be required to provide additional collateral in response to a "margin call". If the investor does not provide the required margin in response to the margin call then the position may be liquidated at a time which may be disadvantageous to the investor. This may result in loss of all margin and loss of the entire investment even where the investment would otherwise have been profitable had it not been liquidated.

The obligation to respond to additional margin calls may continue even if the investor has closed a short position by cancelling it via the forward acquisition of the asset sold short, in particular if the transactions are made with different counterparties, or the difference between the purchase price and the sale price is significant, or the transactions have different settlement dates.

Risk related to the type of transaction used – short selling is a strategy which may be used in several different ways and by the application of several different transactions. You should therefore, depending upon the case in question, take into account the peculiarities and risks specific to a forward contract, a call option and/or securities lending or borrowing transactions.

19. DIGITAL ASSETS

A. WHAT IS A DIGITAL ASSET AND WHAT IS BLOCKCHAIN AND DISTRIBUTED LEDGER TECHNOLOGY?

A digital asset (also known as a virtual asset or a crypto asset) is an electronic record in which an individual has a right or interest ("**Digital Asset**"). The term does not include an underlying asset or liability unless the asset or liability is itself an electronic record. Digital Assets are different than physical assets because digital assets themselves do not exist in physical form. Instead, Digital Assets can take many different forms.

Payment tokens (e.g. cryptocurrencies) are tokens which are intended to be used as a means of payment for acquiring goods or services or as a means of money or value transfer. Cryptocurrencies do not give rise to claims on their issuers. Bitcoin is one of the most widely used payment tokens. A bitcoin holder does not have a claim on any asset or any entity. The value of a bitcoin is a function of the ability of the holder to trade the bitcoin for goods, services, other tokens, or fiat currency. However, the vast majority of bitcoin transactions today have been speculative.

Digital Assets also include utility tokens (which provide access digitally to an application or service by means of blockchain-based infrastructure), asset tokens (which represent assets such as a debt or equity claim on the issuer of the asset token) and stablecoins (whose value is frequently linked to an underlying asset such as a fiat currency or a commodity).

Blockchain is a shared, unchanging and chronological record of transactions, frequently referred to as a digital ledger, and a type of distributed ledger technology ("**DLT**"). DLT/Blockchain technology creates a digital ledger of transactions and shares it among a distributed network of computers. It uses codes to protect information and communications. The concept behind the decentralised digital ledger is that it is seen to eliminate the need for a trusted third party intermediary or central authority, such as a financial institution or a regulatory authority, to verify the transaction. Instead, DLT/blockchain participants themselves collectively verify proposed transactions in a peer-based verification system.

B. HOW DOES INVESTING IN DIGITAL ASSETS REWARD INVESTORS?

Digital Assets are not traditional investments. The value of Digital Assets are determined by a wide variety of factors, including the supply of and demand for Digital Assets, Digital Assets trading venues, the number of users and speculators, regulatory policies and hacks on any parts of the Digital Asset ecosystem. As Digital Assets are a new asset class, their performance related to other assets, such as traditional asset classes, is uncertain. Investors may want to invest directly or indirectly in Digital Assets to enhance their investment returns and/or to increase their portfolio diversification. The reward will depend on the price of the Digital Assets and the type of investment product used to gain exposure to Digital Assets. Some of the risks of investing in Digital Assets or investment products that provide exposure to Digital Assets are highlighted below.

C. WHAT ARE THE RISKS OF INVESTING IN DIGITAL ASSETS?

Products providing exposure to Digital Assets - There are many types of investment products that provide exposure to Digital Assets. Among others, these include futures contracts, mutual funds, hedge funds, ETFs, structured products and non-deliverable forwards. In addition to the risks set out below in respect of Digital Assets, these products will inherently also share all of the risks associated with the investment product providing exposure to the Digital Asset (some of these risks are set out in other sections of this Risk Disclosure Booklet). Digital Assets are a new class with limited history and the combination of all of these risks in a single product may result in investors suffering a partial or total loss of their capital.

Digital Assets and DLT/Blockchain technology are new and continue to evolve - Digital Assets were introduced only recently. Their value is influenced by a wide variety of factors that are uncertain and difficult to evaluate. Please refer to the risk factor “Price Volatility” below for examples of different factors that may have an impact on the price of Digital Assets. Moreover, because Digital Assets have been in existence for a short period of time and are continuing to develop, there may be additional risks in the future that are currently impossible to predict or evaluate. The slowing, stopping or reversing of the development or acceptance of the Digital Assets network may also adversely affect the price of the Digital Assets. The value of a Digital Asset may fall to zero and an investment product with exposure to Digital Assets may turn out to be substantially worthless and investors may lose some or all of their capital. DLT/Blockchain technology is also a relatively new, untested and evolving technology. It represents a novel combination of several concepts, which may be present or absent in varying degrees across differing Digital Assets, and novel methods of authenticating and recording transactions using codes.

Price volatility - The investment characteristics of Digital Assets generally differ from those of traditional currencies, commodities, securities or other types of financial instruments. Digital Assets are not backed by a central bank or a national, supra-national or quasi-national organisation, any hard assets or fiat currency (except certain types of stablecoins), human capital, or other form of credit. Historically, prices of Digital Assets have demonstrated dramatic fluctuations within a short period of time relative to more traditional asset classes. The trading prices of many Digital Assets have experienced extreme volatility in recent periods and may continue to do so. Extreme volatility in the future, including additional rapid and steep declines in the trading prices of Digital Assets could result in significant uncertainties for investors and could have a material adverse effect on the value of an investment product with exposure to Digital Assets which could lose all or substantially all of its value. The price of Digital Assets may be affected by a wide variety of complex and unpredictable factors, including but not limited to:

(i) global Digital Asset supply and demand;
(ii) changes to software or hardware underlying a DLT/blockchain network and/or Digital Assets;
(iii) their dependence on technologies such as cryptographic protocols;
(iv) their dependence on the role played by miners and developers;
(v) disruptions to Digital Asset exchanges, such as interruptions in service from or failures of major Digital Asset exchanges;
(vi) regulatory changes by governmental, legal, tax or other authorities;
(vii) security vulnerability, hacks, malware, viruses, botnet that may impact any aspect of the Digital Asset ecosystem (including but not limited to the Digital Asset exchanges, hardware wallets, blockchain of any Digital Assets);
(viii) rewards and transaction fees for the recording or processing of transactions on the blockchain of any Digital Assets
(ix) acceptance as a store of value and/or as a reliable medium of exchange by customers, merchants and other market participants; or
(x) Digital Assets infrastructure failures, including, without limitation, Digital Asset custodian and/or exchange defaults, fraud and other criminal activity.

Uncertain regulatory framework - Digital Assets, the Digital Asset exchanges and trading platforms on which Digital Assets are traded and Digital Asset custodians may be relatively new and are mostly unregulated. Globally, regulators, legislators and courts are also beginning to assess the legal characteristics of Digital Assets, DLT/Blockchain technology and the manner and extent to which Digital Assets and investment products with exposure to Digital Assets should be subject to regulation. Recent legal and regulatory developments in Hong Kong, the People’s Republic of China, the United States, the United Kingdom and certain other jurisdictions have in some cases been highly critical of how Digital Assets have been developed and traded. If in the future, a hostile regulatory environment emerges against Digital Assets, Digital Asset exchanges or Digital Asset custodians globally, it could have a negative impact on the value and/or liquidity of the Digital Assets and their value, and any payments on the relevant investment product. The DLT/blockchain industry is also in the middle of an evolving regulatory landscape. In the near future, various foreign jurisdictions may impose laws or regulations that may affect the blockchain industry. Such laws and regulations may have a direct negative impact on Digital Assets and the value of investment products with exposure to Digital Assets.

Cross-border nature - The different parties involved in the issuance, custody and maintenance of Digital Assets and DLT are likely to be located in a number of different jurisdictions globally or may even be difficult to locate. The resolution of any conflict may not be possible and will in any case be costly and likely to be out of scope of the jurisdiction of your local regulator.

Risk related to Digital Asset security - Digital Assets may employ online internet connected systems (i.e. “hot wallets”, which may be provided by third party service providers) to hold Digital Assets. Where Digital Assets are stored in “hot wallets”, the risk of losses is higher as these “hot wallets” may be the target of malicious cyberattacks or may contain exploitable flaws in their underlying

codes that may result in security breaches. Any party that gains access to the private keys, including by gaining access to login information of the digital wallets, may be able to misappropriate Digital Assets, resulting in significant losses.

Digital Assets custody risk - Digital Asset custodians may not be able to offer the level of service and/or safekeeping in respect of Digital Assets which they would otherwise typically be able to provide for securities or other traditional asset classes. Having Digital Assets on deposit or with any third party in a custodial relationship carries a number of risks, including, security breaches, risk of contractual breach, risk of theft and risk of loss. Certain investment products that invest in Digital Assets directly may use third party custodians, including wallet providers, to hold Digital Assets. Digital Assets may be concentrated in one location or with one third party custodian which may be prone to losses arising out of hacking, loss of passwords, compromised access credentials, malware, or cyber-attacks. Digital Assets custodians may not indemnify against any losses of Digital Assets. Investors should also note that most of the Digital Assets custodians are not regulated and accordingly, they are not subject to any regulatory oversight and are not required to comply with laws, rules and regulations that are designed to protect customer assets.

Distributions-in-kind – Digital Asset investment products may provide for the possibility of in-kind distributions of Digital Assets to holders (for example, in the event of an “air drop” or a liquidation), and J.P. Morgan cannot currently support custody of such digital assets. Accordingly, you may need to make alternative digital custody arrangements in order to capture the value of such distributions.

Digital Assets hacker risk – Hackers may launch attacks to steal, compromise, or secure Digital Assets, such as by attacking the Digital Assets network source code, exchange servers, third party platforms, custodians, cold and hot storage locations or software, or Digital Asset transaction history, or by other means. At this time, there is no governmental, regulatory, investigative, or prosecution authority or mechanism through which an action or complaint regarding missing or stolen Digital Assets can be brought. Consequently, it may not be possible to replace missing Digital Assets or seek reimbursement for any theft of Digital Assets, which could have a material adverse effect on Digital Assets or investment products with exposure to Digital Assets.

Potential price manipulation on trading platforms – Digital Assets that are represented and traded on trading platforms may not necessarily benefit from well-established exchanges or trading markets. Traditional stock exchanges, such as the New York Stock Exchange or Nasdaq, have listing requirements, vet issuers, require them to be subjected to rigorous listing standards and rules, and monitor investors transacting on such platform for fraud and other improprieties. These conditions may not necessarily be replicated on trading platforms that list Digital Assets, depending on the platform’s controls and other policies. The less stringent a platform is about vetting issuers of Digital Assets or users that transact on the platform, the higher the potential risk for fraud or manipulation of Digital Assets. These factors may decrease liquidity or volume or increase volatility of Digital Assets trading on a non-traditional exchanges, which may adversely affect the value of Digital Assets or investment products with exposure to Digital Assets.

Lack of secondary markets for certain Digital Assets – Certain Digital Assets have no established public market. Although some Digital Assets may be listed on exchanges, there can be no assurance that such exchanges will maintain a listing or that they will continue to allow access by investors. Further, there can be no assurance that a secondary market of a Digital Asset will develop or, if a secondary market does develop, that it will provide the Digital Asset holders with sufficient liquidity or that the market will continue for the life of the Digital Asset. The uncertainty surrounding the secondary markets for Digital Assets may lead to substantial losses. Investment products with exposure to Digital Assets may not be able to be liquidated or may only be able to do so at a substantial or total loss.

Counterparty risk when effecting transactions with issuers, private buyers / sellers or through exchanges or trading platforms – Investment products that invest in Digital Assets directly may transact with issuers, private buyers or sellers or through exchanges or trading platforms. These investment products will take on counterparty risk every time they buy or sell Digital Assets on exchanges, trading platforms or with counterparties, and their contractual rights with respect to such transactions may be limited. If these investment products are unable to enforce their rights for any losses which they suffer against the relevant issuers or counterparties, this will have a material adverse impact on their value.

Technology-related risk – Digital Assets are dependent on their underlying technology. A disruption of the internet or of a DLT/blockchain would affect the ability to transfer Digital Assets and, consequently, could adversely affect their value. Also, codes of blockchain may be vulnerable to exploitation or may prove to be flawed or ineffective, enabling theft or fraud. Any of these circumstances could lead to a loss of confidence in the relevant Digital Assets, and potentially across all Digital Assets, which would cause the price of some or all Digital Assets to fall.

Forking risk – A rejection of an update to the source code by users, miners or Digital Asset-based companies of a Digital Asset could create a “fork” (i.e. split) in the Digital Asset network. A fork could also occur due to a flaw in the underlying software. The occurrence of a fork would lead to two or more networks of the Digital Asset running concurrently, with one version running the pre-modified software and the other running the modified software. If forks exist in the DLT/blockchain, this may have a material adverse effect on the Digital Assets or an investment product with exposure to the affected Digital Asset. There is no guarantee that merchants, wallets, exchanges or other service providers will support, or that a market will develop for, future Digital Assets that may arise from the forks, which may also compete with the legacy Digital Asset (negatively affecting its value).

In addition, forks that split the DLT/blockchain may carry further risks, including but not limited to:

(i) legacy Digital Asset networks heavily decline in value or that the combined value of the competing versions of the relevant Digital Asset is less than the value of the single legacy Digital Asset network (particularly, if the fork is interpreted as a general failure to reach a consensus regarding the particular Digital Asset network);
(ii) developers, service providers and users choose one version of the particular Digital Asset (the subject of the fork) over another; or
(iii) the division of mining power makes each version of the particular blockchain based Digital Asset network slower and/or less secure.

SECTION 4 - FURTHER RISKS

1. OFF EXCHANGE TRANSACTIONS

Transactions which are not effected on, or under the rules of an organised investment exchange may be exposed to substantially greater settlement and other risks than those effected on a regulated exchange.

2. NON-READILY REALISABLE INVESTMENTS

Both exchange listed and traded and off-exchange investments may be non-readily realisable. These are investments in which the market is limited or could become so. Accordingly, it may be difficult for an investor to assess the market value of the investments or to liquidate the investor's position.

3. STABILISATION

Transactions may be carried out in securities where the price may have been influenced by measures taken to stabilise it. Stabilisation enables the market price of a security to be maintained artificially during the period when a new issue of securities is sold to the public. Stabilisation may affect not only the price of the new issue but also the price of other securities relating to it. Regulations permit stabilisation in order to help counter the fact that, when a new issue comes to the market for the first time, the price can sometimes drop before buyers are found.

Stabilisation is carried out by a stabilisation manager (normally the firm chiefly responsible for bringing a new issue to market) who must follow a strict set of rules and who is entitled to buy back securities that were previously sold to investors or allotted to institutions which have decided not to keep them. The effect of this may be to keep the price of the securities at a higher level than it would otherwise be during the period of stabilisation. The fact that a new issue or a related security is being stabilised should not be taken as any indication of the level of interest from investors, nor of the price at which they are prepared to buy the securities.

4. CANCELLATION

In certain circumstances, private investors who are "consumers" under relevant legislation are, as a general rule, entitled to cancel a decision to invest in designated investments within a prescribed period. This right does not apply in relation to Funds (i.e. regulated collective investment schemes) where we have not provided the investor with a personal recommendation to invest in it. Nor does it apply to certain contracts entered into at a distance (i.e. where there has been no face-to-face contact at the time the contract is concluded). There may be other circumstances limiting the right of cancellation under the rules and regulations of the relevant national competent authority.

5. SUSTAINABILITY RISKS

A. WHAT IS A SUSTAINABILITY RISK?

ESG stands for environmental (e.g. energy and water consumption), social (e.g. employer appeal and supply chain management) and governance (e.g. remuneration policy and company management).

ESG-Risks are events or situations in these three areas that are currently having a negative impact on economic, cost or reputation factors, for example, and thus also on the value of a company or the market price of financial instruments or could potentially do so in future. Such ESG-Risks may include:

a) Environmental risks are commonly divided into two categories: physical risks and transition risks. Physical risks include flooding and heatwaves, which threaten or harm a company's economic activities or assets. Transition risks include regulatory risks, changes in consumer behaviour and liability or legal risks. One example of a transition risk would be the introduction of a tax on carbon dioxide emissions, which could negatively affect a company's profitability and thus its enterprise value.
b) Social risks can arise, for example, from violations of employment standards, a lack of attention to occupational health and safety, poor product safety, failure to address social issues, unfair treatment of staff or high staff turnover.
c) Governance risks can arise, for example, from unequal treatment of shareholders, inadequate risk management or control mechanisms, inappropriate remuneration systems or rule violations (e.g. corruption).

ESG-Risks are relevant as both standalone risks, as well as cross-cutting risks which can manifest through many other risk types such as financial and business risks. The increasing importance given to ESG-Risks considerations by both businesses and consumers means that the occurrence of a ESG-risk may result in significant reputational damage to affected businesses. The occurrence of a sustainability risk may also give rise to enforcement risk by governments and regulators, as well as litigation risk. The occurrence of such risks, could in turn, cause an actual or potential material negative impact on the value of an investor's investment.

B. WHAT ARE THE LIKELY IMPACTS OF SUSTAINABILITY RISKS ON INVESTMENTS?

ESG-Risks can affect specific asset classes, regions, economic sectors and/or companies in different ways. For instance, climate change, environmental destruction and the need to adopt more sustainable business practices can lead to changes in the real economy that might create new risk factors for the Client. To the extent that a ESG-Risk occurs, or occurs in a manner that is not anticipated by the Bank, there may be a sudden, material negative impact on the value of an investment. The Client, therefore, should always incorporate ESG-Risks into their risk diversification decisions..

C. WHAT ARE SUSTAINABLE INVESTING STRATEGIES?

Investment approaches that incorporate ESG considerations or sustainable investing include risks. ESG or sustainable investing strategies (together, "**ESG Strategies**"), including but not limited to separately managed accounts ("**SMAs**"), mutual funds and ETFs, can follow different approaches. It is important for the Client to understand that these approaches have different aims and that not all of them are geared to a measurable positive impact on ESG-factors such as reducing pollution. ESG Strategies can limit the types and number of investment opportunities and, as a result, could underperform other strategies that do not have an ESG or sustainable focus. Certain strategies focusing on a particular theme or sector can be more concentrated in particular industries or sectors that share common characteristics and are often subject to similar business risks and regulatory burdens. Because investing on the basis of ESG/sustainability criteria can involve qualitative and subjective analysis, there can be no assurance that the methodology utilised by, or determinations made by, the Bank, or an investment manager or investment adviser selected by the Bank, will align with the Client's beliefs or values. Additionally, other investment managers and investment advisers, including our affiliates, can have a different approach to ESG or sustainable investing and can offer ESG Strategies that differ from the ESG Strategies offered by the Bank with respect to the same theme or topic.

When evaluating investments, an investment manager or investment adviser is dependent upon information and data that might be incomplete, inaccurate or unavailable, which could cause the manager/adviser to incorrectly assess an investment's ESG or sustainable attributes. In making investment decisions, the Bank uses data and information, including but not limited to, industry classifications, industry grouping, ratings, scores and issuer screening provided by third party data providers, or by a J.P. Morgan affiliated service provider. The Bank does not review, guarantee or validate any third-party data, ratings, screenings or processes. Such data and information will not have been validated by the Bank and can therefore be incomplete or erroneous.

ESG and sustainable investing are not uniformly defined concepts and scores or ratings may vary across data providers that use similar or different screens based on their process for evaluating ESG characteristics. Investments identified by the Bank as demonstrating positive ESG characteristics might not be the same investments identified by other investment managers in the market that use similar ESG screens or methodologies or are subject to different regulations regarding ESG and/or sustainable investing. In addition, investments identified as demonstrating positive ESG characteristics at a particular point in time might not exhibit positive or favourable ESG characteristics across all relevant metrics or methodologies or on an ongoing basis. ESG or sustainable investing practices and/or characteristics differ by asset class, country, region and industry and are constantly evolving. As a result, for example, a company's ESG or sustainability-related practices and the Bank's assessment of such practices could change over time.

The ESG or sustainable investing solutions offered by the Bank meet our internally developed criteria for inclusion in the ESG Strategies available to the Client which, where applicable to the Bank, take into account ESG or sustainable investing regulations. As part of the due diligence process, the Bank's Manager Solutions team applies an ESG eligibility framework that establishes minimum criteria for determining the universe of ESG Strategies offered to the Client.

The evolving nature of sustainable finance regulations and the development of jurisdiction-specific legislation setting out the regulatory criteria for a "sustainable" investment or "ESG" investment mean that there is likely to be a difference in the meaning of such terms across the regulatory regimes in each jurisdiction (where applicable)Unless otherwise specified and where permitted by applicable law, references to "sustainable investing" or "ESG" in this material are intended as references to our internally developed criteria only and not to any jurisdiction-specific regulatory definition.

D. WHAT ARE CATEGORY RESTRICTIONS AND EXCLUSIONS RISKS?

Investment strategies which incorporate restrictions or exclusions of particular sectors or industries can affect the investment manager's ability to make investments or take advantage of opportunities that may be available to strategies that do not have similar restrictions and, as a result, investment performance could suffer. In order to implement category restrictions, the Bank may rely on information about a company, industry classification, industry grouping and/or issuer screening provided by a J.P. Morgan affiliated service provider or a third party. Category restrictions aim to screen companies that engage in certain behaviours or earn revenue derived from a restricted category, however they do not exclude all companies with any tie or revenue derived from such restricted category. If a Client holds an investment that is perceived to belong to the restricted category, such security may be sold and could trigger a taxable event to the Client. Third party managers may apply category restrictions differently than the Bank, or its affiliates and use different data and methodologies. Therefore, the selection of restricted securities and the number of restricted securities may differ in the same category. Category restrictions require assumptions, opinions and the subjective judgment of the data provider that might not reflect the Bank's views or values and/or the views or values of any particular client. Further, use of a particular data source from an organization does not mean the Bank endorses all the activities of that organization. Additionally, data providers may have conflicts of interest if receiving compensation from or providing services to companies that use or obtain their ratings. The Bank does not review, guarantee or validate any third-party data, ratings, screenings or processes. Moreover, issuer screenings and processes to implement category restrictions are not absolute and could be discontinued or changed at any time, including but not limited to, changes to industry sector definitions, parameters, ownership categories, revenue calculations and estimations that could result in holding investments in companies that derive revenue from the restricted category.

The application of category restrictions may vary by asset class. Restrictions are not available for all strategies and the Bank can reject a request for a restriction, including if it deems the restriction to be unreasonable or not in line with the strategy.

Any values-based or religion -based restrictions will exclude categories selected by the Bank or a third party provider. Such restrictions may not completely represent or fully align with any particular client's values or religious beliefs.

6. PUBLICLY-TRADED PARTNERSHIPS

Certain assets may change their status to a publicly-traded partnership ("**PTP**") without notice to the Bank and its clients. This can result in certain US withholding tax and reporting obligations to investors. As the Bank may not be able to support custody of PTP assets you may be required to transfer out your interest in the PTP asset to another custodian. If any asset in a discretionary investment management portfolio changes status to a PTP, the asset may be sold by the Bank, which may impact the performance of the portfolio and may result in US tax withholding and reporting obligations to investors. For further information on tax-related risks, see Section 2.

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