

# **Issuance** Programme

#### 15 April 2019

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dated **15 April 2019** for **Derivatives** of **Zürcher Kantonalbank** and **Zürcher Kantonalbank Finance (Guernsey) Limited** 

This Issuance Programme has been registered with SIX Swiss Exchange pursuant to Art. 23 of the Additional Rules for the Listing of Derivatives ("ARD") and was approved by SIX Swiss Exchange on 15 April 2019 as a "SIX Swiss Exchange-registered Issuance Programme".

This Issuance Programme applies to all Derivatives (as defined in Section III.B) that are issued from time to time by Zürcher Kantonalbank or Zürcher Kantonalbank Finance (Guernsey) Limited (together the "Issuers" or in their capacity as issuers, each an "Issuer").

It contains all information that is required be published pursuant to the Listing Rules of the SIX Swiss Exchange ("LR") and Scheme F concerning the information to be disclosed about the Issuers, as well as the General Terms of the Derivatives and the general special terms of a Derivatives Series issued by an Issuer under this Issuance Programme. The special terms (together with the General Terms of the Derivatives and the Special Terms, the "Derivative Terms") of the individual Derivatives Series issued under this Issuance Programme are included in the applicable Final Terms ("Final Terms") for the relevant Derivatives Series and specify the applicability of the then applicable Derivative Terms. This Issuance Programme, together with the applicable Final Terms, constitute, under Art. 22 para. 1 No. 2 ARD, the complete listing prospectus, as well as the complete issue prospectus for an individual Derivatives Series. The original versions of the Issuance Programme and the applicable complete listing prospectus are in German; foreign-language versions are non-binding translations.

In the event of conflicts between the Derivatives Terms contained in this Issuance Programme and the Final Terms, the Final Terms prevail with respect to the individual Derivatives Series.

Derivatives issued under this Issuance Programme are considered structured products in Switzerland. They do not constitute a collective capital investment as defined in the Federal Law on Collective Capital Investments ("CISA") and therefore are not subject to the protection provisions of the CISA, as well as the approval requirement and the supervision of the Federal Financial Market Supervisory Authority ("FINMA").

This Issuance Programme is available at the freely accessible website of the Zürcher Kantonalbank (https://zkb-finance.mdgms.com/products/stp/service/emission/index.html). The Final Terms of each Derivatives Series issued under this Issuance Programme are also available at the freely accessible website of Zürcher Kantonalbank

(http://www.zkb.ch/strukturierteprodukte) during the term of the individual series. In addition, the Final Terms of each Derivatives Series issued under this Issuance Programme are available free of charge at Zürcher Kantonalbank, Bahnhofstrasse 9, 8001 Zürich and via the email address documentation@zkb.ch.

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# ANNEXES:

(constitute an integral part of this Issuance Programme)

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Annex 1B (Annual Report 2018 Zürcher Kantonalbank)

Annex 2A (Annual Report 2017 Zürcher Kantonalbank Finance (Guernsey) Limited)

Annex 2B (Annual Report 2018 Zürcher Kantonalbank Finance (Guernsey) Limited)

Annex 3 (Keep-Well Agreement between Zürcher Kantonalbank and Zürcher Kantonalbank Finance (Guernsey) Limited)

Annex 4A (Model Final Terms for Warrants)

Annex 4B (Model Final Terms for Mini-Futures)

Annex 4C (Model Final Terms for Other Derivatives)

# I. RISK FACTRORS

### A. Material risks relating to the Issuer

### a) Risks regarding the ability of the Issuer to meet its obligations (credit risk)

An investment in Derivatives issued by the Issuer bears the risk that the Issuer will temporarily or permanently fail to meet its outstanding obligations, fail to meet them in full and/or fail to fulfill them when due. (Issuer risk)

# b) Possible Conflicts of Interest

Conflicts of interest for Zürcher Kantonalbank or the Zürcher Kantonalbank Group may result from any transactions in the Underlying and other possible functions or activities in respect of the Derivatives.

# aa) Transactions in the Underlying or business activity with the Issuer of the Underlying/Reference Debtor

The Issuer and other companies of the Zürcher Kantonalbank Group may, for its own account or the account of a customer, participate in transactions, or engage in other activities or functions, which are related to the Derivatives or the Underlyings/Reference Debtors. Zürcher Kantonalbank may also have business relations with Issuers of the Underlying assets or the reference debtor.

These transactions and activities are possibly not beneficial for investors in the Derivatives and may have adverse effects on the value of an Underlying resp. the creditworthiness of the reference debtor and therefore on the value of the Derivative.

# bb) Engaging in other functions

The Issuer and other companies of the Zürcher Kantonalbank Group may, in respect of the Derivatives, engage in other functions, e.g., as calculation agent, paying agent and administrative agent or index sponsor. Such a function may entitle the relevant company to determine the composition of the Underlying or to calculate its value, which may lead to conflicts of interest if securities issued by a company of the Zürcher Kantonalbank Group or other assets may be chosen as the Underlying, or if a company of the Zürcher Kantonalbank Group has business relations with the issuer of the relevant securities or assets.

The issuers or other companies of the Zürcher Kantonalbank Group may moreover issue other derivative instruments in connection with the respective Underlying; any introduction of such products may have an impact on the value of the Structured Products. The issuers and other companies of the Zürcher Kantonalbank Group may receive non-public information with respect to the Underlying and they are not required to disclose such information to the holders of the securities unless there is a mandatory statutory requirement to do so. In addition, companies of the Zürcher Kantonalbank Group may publish research reports in relation to the Underlying. Such actions may lead to conflicts of interest both among the companies of the Zürcher Kantonalbank Group concerned as well as between these companies and the investors, and may have a negative impact on the value of the securities.

#### cc) Issue of other Derivatives in respect of an Underlying

Zürcher Kantonalbank Group companies may issue various Derivatives in respect of the same Underlying or the same Underlyings. Such Derivatives may compete with already issued Derivatives which may adversely affect the value of the already issued Derivatives.

#### dd) Execution of hedging transactions

The Issuer and other companies of the Zürcher Kantonalbank Group may apply a part or the entire amount of the proceeds from the sale of the Derivatives for hedging transactions, which may adversely affect the value of the Derivatives. The value of the Derivatives may be affected, in particular, through the termination of a part or all of the hedging positions (hedging).

In general, such transactions are concluded on or before the issue date of the derivatives. However, it is also possible to conclude transactions after the derivatives have been issued. On or before a day on which the value of the underlying(s) is determined in accordance with the Final Terms applicable to the derivatives (observation or valuation day), the issuer or another company in the Zürcher Kantonalbank Group may take the necessary steps to liquidate the concluded hedging transaction. Nonetheless, it cannot be ruled out that the value of the underlying(s) is influenced by such hedging transactions in individual cases. Moreover, in the case of derivatives whose performance depends on the occurrence of a specific event relating to the underlying(s), the conclusion or liquidation of such hedging transactions may affect the probability of the event in question occurring or not occurring.

If, on account of particular market situations, the hedging transactions cannot be concluded or can only be concluded under more difficult conditions, the spread between the bid price and offer price of the Derivatives in question may widen, or the provision of bid and offer prices may be interrupted in order to limit the financial risks for the issuer or another company in the Zürcher Kantonalbank Group (which is entrusted with the hedge). It may therefore be difficult for holders of such Derivatives to sell their derivatives, or a sale may only be possible significantly below the actual value of the Derivative in question at the time of the sale, which may lead to a loss for the holder.

Holders of Derivatives of the issuer do not have any rights with respect to the hedging transactions described.

# ee) Crediting of hedging transactions

The price of the Underlying of a Derivative can be fixed at the time of issue (Initial Fixing), during the term of new weightings (rebalancing) and at maturity (Final Fixing) on the basis of the prices achieved for the corresponding hedging transactions. Such hedging transactions determine the value of the Derivative accordingly, exposing investors to the risk that they will not be executed in the interest of the investors. In order to minimise this risk, the product conditions generally stipulate that the hedging transactions must be carried out in a manner that "protecting interests", i.e. in several steps in order to avoid the risk of influencing the price.

The Issuer has taken measures to ensure that its activities are carried out in a manner that protecting interests of the Issuer, although any disadvantage to investors cannot be completely ruled out.

# ff) Acting as market-maker for the Derivatives

A company of the Zürcher Kantonalbank Group or a party acting on its behalf may act as market-maker for the Derivatives in order to improve the market liquidity of the Derivatives and to equalize imbalances between supply and demand. A company of the Zürcher Kantonalbank Group or a party acting on its behalf will, itself, through such "marketmaking", materially determine the price of the Derivatives. As a result, the market prices determined by the marketmaker normally are not the same as those that would have resulted in a liquid market without market-making.

The market-maker determines the bid and asked prices in the secondary market, in particular by taking into account the value of the Derivatives determined by the market-maker, which, among other things, is dependent on the value of the Underlying, as well as the difference between bid and asked prices targeted by the market-maker. In addition, a charge imposed upon issue and any compensation or costs to be deducted upon the maturity of the Derivative from its redemption price (i.e., administrative, transaction or other charges in accordance with the Derivative Terms) will routinely be taken into account. Further, a margin included in the issue price of a Derivative and dividends or similar income paid or to be paid on the Underlying or its components have an influence on the determination of the price in the secondary market if, based on the terms of the Derivative, a company of the Zürcher Kantonalbank Group is economically entitled to them. The spread between bid and asked prices is determined by the market-maker on the basis of supply and demand for the Derivatives and certain income considerations.

In determining the price, certain costs, such as, for example, administration fees, will in many cases not be deducted in equal amounts distributed over the term of the Derivatives and therefore in reduction of the price, but rather deducted from the calculated value of the Derivatives already at an earlier point in time determined in the discretion of the market-maker. The same applies for a margin included in the issue price of the Derivatives, as well as for dividends and other distributions in respect of the Underlying, to the extent that the Issuer is economically entitled to receive them pursuant to the terms of the Derivative. These are often not deducted in reduction of the price when the Underlying is traded "ex-dividend", rather already at an earlier point in time during the term and on the basis of the dividends expected for the entire term or a certain part of the term. The timing of this deduction is dependent on, among other things, the amount of any income received by the market-maker from the securities.

The prices provided by the market-maker may therefore deviate significantly from the calculated or economically expected value of the Derivatives at the relevant time based on the factors mentioned above. In addition, the marketmaker may change the method for the determination of the prices provided at any time, such as the increase or decrease of the spread between bid and asked prices. In particular, the spread between bid and asked prices may increase if the liquidity and tradability of the Underlying deteriorates due to external conditions.

In addition, the market-maker has the option of providing asked prices only for specific Derivatives, e.g. if the marketmaker is not able to issue additional securities of a Derivatives Series.

#### gg) Acting as market-maker for the Underlying

Zürcher Kantonalbank Group companies may in certain cases act as market-maker for the Underlying, especially when the company of the Zürcher Kantonalbank Group also issued the Underlying. The price of the Underlying will be determined to a significant degree by the Zürcher Kantonalbank Group company and therefore influences the value of the Derivatives. The prices provided by the market-maker will not always correspond to the prices that would have developed in a liquid market with such market-making.

# hh) Acting as a member of an underwriting syndicate or a similar function in respect of the issue of an Underlying

Zürcher Kantonalbank Group companies may, in connection with future offers of an Underlying, act as underwriter or financial adviser to the Issuer. Activities of this type may entail certain conflicts of interest and affect the value of the Derivatives.

# ii) Receipt of nonpublic information

The Issuer and Zürcher Kantonalbank Group companies may possibly receive nonpublic information about the Underlying that they are not required or entitled to disclose to purchasers of the Derivatives. Such information may entail conflicts of interest and affect the value of the Derivatives.

# jj) Determining the issue price and sales commissions

The issue price may include sales commissions that are paid by the issuer or the calculation agent to one or more distribution partners for their distribution activities in the form of a discount on the issue price, as compensation for part of the issue price or in the form of other one-off and/or recurring fees. Any sales commissions may have a negative effect on the value of the derivatives and on the investor's potential income. It should also be noted that payment of any sales commissions to distribution partners may result in conflicts of interest at the expense of the investor.

# B. Product-specific risk factors in respect of the Derivatives

Because the development of the value of the Derivatives primarily depends on the value of the relevant Underlying, potential investors should, in addition to the section "General Risk Factors in Respect of the Derivatives", carefully review the descriptions in the sections "Derivative Terms" and "Information about the Underlying", as well as the other information in this Document (including any additional risk factors).

# a) The Derivatives are unsecured obligations

The Derivatives constitute direct, unsecured and unsubordinated obligations of the Issuer which rank equally with all other current and future unsecured and unsubordinated obligations of the Issuer except such obligations which rank higher on the basis of mandatory provisions of law. The Derivatives are not protected by a deposit protection fund.

# b) Capital protection

If and to the extent capital protection is specified in the relevant Final Terms, the relevant Derivatives will be redeemed at an amount which is not less than the specified capital protection. The capital protection may be set both below or above, as well as the same, as the principal amount or par value of the Derivative. Because the capital protection is specified in relation to the principal amount or par value of the Derivative, the investor has the benefit of capital protection only in this amount, even if purchase price or issue price paid by the investor is greater than the principal amount or par value. The protection for the invested capital is reduced accordingly. Capital protection is not provided if the Derivatives are repaid before the agreed maturity date or in the event of the occurrence of a basis for termination or early repayment for tax reasons or if the investor sells the Derivative before the maturity date.

If the Final Terms do not explicitly specify capital protection, then the fundamental risk exists that the investor will lose entire amount of the funds invested by the investor. Even if capital protection applies, the risk exists that the capital protected amount is less than the investment made by the investor. Further, the payment of the capital protected amount is dependent on the financial condition of the Issuer or other circumstances related to it. Consequently, an investor could lose his derivatives investment fully or partially, despite full or partial capital protection, if the Issuer cannot fulfil wholly or only partially his derivatives obligations.

#### c) Dependence of the value of the Derivatives on the value of the Underlying

Derivatives are financial instruments whose value is especially influenced by the value and volatility of the Underlying and the remaining term of the Derivative, such that an investment in the Derivatives is subject to various risks.

Potential investors should have no doubts about their understanding that the return on their investment in the Derivatives is dependent on the change in value of the Underlying. The change in value of the Underlying is influenced by numerous market factors and risks. Among these are risks in respect of the stock, bond, foreign exchange, real estate, precious metals and commodities markets, interest rates, exchange rates, market volatility, as well as general economic, political, regulatory and other factors. These and further risk factors, individually or collectively, may significantly affect the value of the Underlying. In addition, the value of the Underlying is influenced by, among other things, interest rates, potential dividend or interest payments in respect of the Underlying, changes in the method of calculating the value of the Underlying and market expectations in respect of the future change in the price of the Underlying, its composition and the Derivatives. An investment in the Derivatives should therefore only be made after an assessment of the direction, timing and extent of potential, future changes in the value of the Underlying and/or changes in the composition or the calculation method of the Underlying because the return from the relevant investment is dependent, among other things, from fluctuations of this type.

Historical values provide no assurance for the future development of the value of the Underlying. Predictions concerning the future change in the value of the Underlying on the basis of past changes in value cannot provide any information about the future value of the Underlying or the investment return at the end of the term of the Derivative.

# d) Market risks and market factors

The value of the Derivatives is determined by a series of factors. Among the factors that influence the value of the Underlying are, among other things, the term of the Derivatives, dividend payments and dividend payment dates that deviate from the market expectation, as well as, in the case of Derivatives whose Settlement Currency is not the same as the Reference Currency, the change in the Exchange Rate of the Settlement Currency to the Reference Currency or currencies.

At the same time, the frequency and intensity of the fluctuations (volatility) of the Underlying or the individual components of the Underlying have an influence on the market value of the Derivative during its term. The degree of the volatility is not only a measure of the actual volatility, but will to a large degree be determined by the prices of the instruments which offer investors protection against such market volatility. The prices of these instruments are generally determined by supply and demand in the options and Derivatives markets. These forces of supply and demand are nevertheless in turn influenced by factors such as current volatility, economic factors and speculation.

In addition, the market value of the Derivatives is influenced by, among other things, interest rates, potential dividends or interest payments and other events in respect of the future change in the value of the Underlying.

If after the purchase the market value of the Derivatives declines below the purchase price, investors should not expect that the market value of the Derivatives will rise to or above the purchase price during the remaining term.

Investors should also be prepared to bear the total loss of their investment in the Derivatives, including transaction costs paid. This risk exists regardless of the creditworthiness of the Issuer.

#### C. General Risk Factors in Respect of the Derivatives

In addition to the specific characteristics of the Derivatives which are shown under the section "Product-specific risk factors in respect of the Derivatives", potential investors should also take into account the following general risks of an investment in the Derivatives.

#### a) Issue price

Under certain circumstances, the issue price of the Derivatives may include, in addition to the specified issue charges, administration or other fees, a charge on the mathematical value of the Derivatives which at the most is not apparent to investors. This margin is determined by the Issuer in its unfettered discretion and can vary from the charges imposed by other issuers of comparable Derivatives. Zürcher Kantonalbank will not indicate the cost as a range but will state the specific cost for the product in question.

#### b) Risk of the limited term

To the extent not explicitly stated otherwise in the Final Terms, the Derivatives are rights limited by time. As a result, there is no assurance that potential market losses will be recovered during the term of the Derivatives. In general, the probability that losses sustained in the interim can be recovered declines during the course of the investment time line. This applies, in particular, also in situations in which the Derivative is terminated by the Issuer (and without regard for the relevant termination payment amount).

#### c) No payments until settlement

During the terms of the Derivatives, no distributions or repayments are made, with the exception of the payment of Coupons or other distributions, before the maturity date. Before the maturity date, investors may obtain potential returns on the Derivatives only through a sale in the secondary market. Investors should in any case note the risk factors under "Issue size" and "Potential illiquidity of the Derivatives".

# d) Exercise or delivery notices and evidence

If the Derivatives are subject to provisions in respect of the delivery of an exercise or delivery notice and a copy of such notice is delivered to the Issuer via the Exercise Agent after the last specified exercise period in the Derivatives Terms, then it is considered delivered only on the next Business Day. Such a late delivery can, in the case of cash settled Derivatives, lead to an increase of reduction in the original amount of the Cash Settlement Amount. In the case of Derivatives that can only be exercised on a specified date or only during an exercise period, each Exercise Notice that is not received by the point in time specified in the Derivatives Terms is ineffective.

If necessary evidence is not provided in accordance with the Derivatives Terms, this can result in the loss of amounts otherwise due on the basis of the Derivatives or the right to claim them. Potential purchasers should review the Derivatives Terms in respect of whether, and in what manner, such provisions apply to the Derivatives.

Derivatives that are not exercised in accordance with the Derivatives Terms expire. Potential investors should review the terms in respect of whether an automatic exercise has been specified or not for the Derivatives and when an Exercise Notice is considered to be validly delivered.

# e) Time delays after exercise

If the settlement of the Derivatives is made through Cash Settlement, then in the case of their exercise, time delays are possible if the time of the exercise and the time of the determination of the relevant Cash Settlement Amount in respect of such an exercise do not coincide. Each delay of this type between exercise and determination of the Cash Settlement Amount is specified in the Derivatives Terms. Such a delay could, however, become significantly longer, especially in the case of a delay which occurs with respect to the exercise of Derivatives with Cash Settlement which use a highest intra-day price for the exercise as described below or in the case of the determination of a Market Disruption at the relevant time by the Calculation Agent as described below. The relevant Cash Settlement Amount could increase or decrease as a result of this delay.

# f) Extraordinary termination, violation of law and force majeure

If the Issuer determines that its obligations in respect of the Derivatives, for reasons for which it is not responsible, have become, in whole or in part, contrary to law or impossible to perform of that the maintenance of hedging transactions in respect of the Derivatives, are contrary to law or impossible to perform, the Issuer shall be entitled, but not required, to terminate the Derivatives on an extraordinary basis. In such a case, the Issuer shall, to the extent permitted by applicable law, pay to each Creditor for each relevant Derivative an amount determined by the Calculation Agent in the amount of the determinable market price, without regard for the violation of law or the impossibility of performance, less the costs of the issue for the termination of, for example, the related hedging transactions.

#### g) Market disruptions, amendments and early termination of the Derivatives

The Issuer and the Calculation Agent may determine that a Market Disruption has occurred or is at the relevant point in time continuing. Such a determination can delay the valuation in respect of the Underlying which can influence the value of the Derivatives and/or delay their settlement. In addition, the Calculation Agent can, if permitted by the Derivatives Terms, amend the terms in order to take into account relevant changes or events in respect of the Underlying and therefore, among other things, determine a replacement for the Underlying or its Issuer or sponsor. Further, the Issuer can, under certain conditions after such an event, terminate the Derivatives early.

In the case of changes, market disruptions, early termination or early redemption, the issuer will act in accordance with its discretion. It is not tied to the measures or estimates of third parties in this respect.

If a Derivate Series should have ended prematurely, the Issuer shall pay in respect of each of the Derivatives, as applicable, an amount determined in accordance with the provisions of the Derivative Terms. Potential purchasers should review the terms to determine whether and in what manner such provisions for the Derivatives apply and what is considered a Market Disruption or relevant event permitting an amendment.

Such changes may have prejudicial effects for investors in the derivatives. Early termination of the derivatives may in certain circumstances result in the forced realisation of losses or other negative effects (e.g. with respect to tax) for the investor. It may also mean that the investor is no longer able to participate in favourable trends in the underlying. In this case, the investor may no longer be able to make a subsequent investment or the investor may only be able to make a subsequent investment at less favourable conditions (reinvestment risk).

#### h) Interest rate risk

An investment in Derivatives is subject to interest rate risk on account of fluctuations in the interest to be paid on deposits in the currency of the Derivatives. This can have effects on the market value of the Derivatives. Interest rates are

determined by various factors of supply and demand in international money markets, which are influenced by economic factors, speculation and interventions by central banks and government authorities or other political factors. Fluctuations in short- or long-term interest rates can influence the value of the Derivatives.

# i) Potential illiquidity of the Derivatives

No prediction can be made as to whether and to what extent a secondary market for the Derivatives will develop, at what price the Derivatives will be traded on this secondary market and whether this secondary market will be liquid or not. To the extent specified in the Term Sheet or in the Final Terms, applications were made for the listing or admission to trading on the relevant securities exchange. If the Derivatives are listed on a securities exchange or are admitted to trading, it cannot be assured that this listing or admission to trading will be maintained. It does not automatically follow that on account of the fact that the Derivatives of the specified type are listed or admitted to trading that greater liquidity is available than would be available if this were not the case.

If the Derivatives are not listed on a securities exchange or are not admitted to trading, information about prices is under some circumstances more difficult to obtain and the liquidity of the Derivatives may be adversely affected. In certain countries, the liquidity of the Derivatives can also be influenced by input requirements, which limit the purchase and sale of Derivatives.

# j) Issue size

The issue size specified in the Final Terms (expressed as the number of Derivatives or as the aggregate principal amount of the Derivatives) refers to the maximum amount of the offered Derivatives, but it gives no indication of the amount of the Derivatives actually issued. This is determined by market conditions and can change during the term of the Derivatives. No conclusion can be drawn about the liquidity of the Derivatives in the secondary market on the basis of the specified issue size. For this reason, investors should also give attention to the risk factor "Potential Illiquidity of the Derivatives".

# k) Issues in relation to hedging

Potential purchasers who wish to purchase the Derivatives for the purpose of hedging their risk in respect of the Underlying should be aware of the risks of such a use. No binding statements can be made about the correlation between the change in value of the Derivatives and the change in value of the Underlying. In some circumstances, the composition of the Underlying can change. In addition, it may prove impossible to sell the Derivatives at a price which directly corresponds to the price of the Underlying. Accordingly, no binding statement can be made in respect of the degree of correlation between the return on an investment in the Derivatives and the return on a direct investment in the Underlying. Conversely, it is possible that the hedging transactions for the purpose of limiting risk in respect of the Derivatives may not have the desired success.

# l) Borrowing

If an investor finances the purchase of the Derivative with a loan, the risk exists that the investor must bear not only the loss that occurs but also must expend additional funds for the payment of interest on the loan and the repayment of the loan. As a result, the investors' risk of loss is increased significantly. An investor therefore should not finance the acquisition of the Derivatives with a loan with the expectation of being able to pay the interest or to repay the loan from profits in a Derivatives transaction. Further, the purchaser of Derivatives must evaluate his or her economic circumstances in order to determine whether he or she is able to pay interest and, under some circumstances, to repay the loan on short notice if losses, instead of the expected profits, including a total loss of the investment in the Derivatives, occur.

#### m) Taxation

Depending on the legal requirements in the country in which the Derivatives will be delivered or on the statutory provisions of the country which then apply if the Underlying consists of equities, stamp tax, foreign transaction taxes and other assessments and taxes may be imposed. The payment of the relevant amounts in respect of the Derivatives depends on the payment of certain taxes, charges and/or costs as defined in the Derivative Terms. In the event of uncertainty of tax requirements, potential investors should consult their own independent tax adviser. In addition, they should be aware that tax law provisions and their application may be subject to changes by the relevant tax authorities. Accordingly, no predictions can be made about the exact, applicable tax treatment at a given time.

#### n) Resale price

The Issuer can make distribution agreements with various financial institutions and other intermediaries chosen by the Issuer (the "Dealers"). In this case, the dealers agree, subject to the performance of certain conditions, to subscribe for the Derivatives at a price equal to or lower than the issue price. The Dealers agree to bear certain costs in connection with the issue of the Derivatives. In respect of all issued and outstanding Derivatives, a regularly recurring fee, the

amount of which is determined by the Issuer, may be payable to the Dealers up to the maturity date. The amount of the fee can change. The Dealers agree to comply with the sales restrictions that are set forth in this document and in the Final Terms, and which are supplemented by additional restrictions in the distribution agreement applicable to the relevant dealer.

# o) Changes in the conditions for subscription

The Issuer has the right in its own reasonable judgment to reduce the amount of the Derivatives offered for subscription, to reduce or to extend the subscription period, to modify certain product parameters in accordance with market conditions (e.g. changed volatility) or to refrain from issuing the Derivatives planned for subscription (e.g., if adverse market conditions such as increased stock exchange and exchange rate volatility exist).

# p) Substitution of the Underlying

During the term of the Derivatives, changes in or substitution of the Underlying by the Calculation Agent can occur. In this case, it cannot be ruled out that such changes or substitutions will negatively affect the value of the Derivatives. Likewise, it cannot be ruled out that in the case of a Derivative based on an index that changes in the composition of the index as a result of change or substitutions in respect of individual index components, for example, as a result of the withdrawal or addition of individual securities, may negatively influence the price of the index and accordingly the value of the Derivatives.

# q) Impact of the downgrading of the Issuer's credit rating

The rating of the Issuer may be changed at any time by the relevant credit Rating Agency. A suspension, downgrade or redemption of the rating may adversely affect the market price of the Issuer's securities.

#### r) Ratings are not recommendations

The ratings of the Issuer should be assessed independently of similar ratings of other companies and of the rating (if any) of securities issued. A credit rating is not a recommendation to buy, sell or hold securities issued or guaranteed by the rated entity and is subject at all times to review, revaluation, suspension, reduction or cancellation by the relevant Rating Agency.

#### II. INFORMATION ABOUT THE ISSUERS

# A. Zürcher Kantonalbank

# a) General Information

# aa) Name, registered office and principal place of business

Zürcher Kantonalbank, Bahnhofstrasse 9, 8001 Zürich.

# bb) Incorporation, duration

The formation of Zürcher Kantonalbank is based on the Banking Act of 1869. The duration of the bank is unlimited.

# cc) Legal authorization, legal form

Zürcher Kantonalbank is an independent institution under cantonal law. Its current legal authorization is based on the Law on the Zürcher Kantonalbank of 28 September 1997, which entered into force on 1 January 1998. The Canton of Zurich is liable for all of the obligations of the Zürcher Kantonalbank to the extent its own funds are insufficient with the exception of subordinated liabilities (§6 of the Law on the Zürcher Kantonalbank).

Zürcher Kantonalbank is subject to the Federal Law on Banks and Savings Institutions of 8 November 1934 and to supervision by FINMA.

# dd) Purpose

In accordance with the statutory purpose article (§2 of the Law on the Zürcher Kantonalbank), the Zürcher Kantonalbank contributes to the performance of economic and social tasks in the Canton of Zurich and supports environmentally sustainable development. It pursues a business policy directed toward continuity and meets investment and financing needs while taking into account the concerns of smaller and medium-sized businesses, employees, the agricultural industry and commerce. In addition, Zürcher Kantonalbank promotes home ownership, as well as the development of affordable housing.

#### ee) Register

The initial registration in the Commercial Register of the Canton of Zurich was made on 24 April 1883.

# ff) Group

The consolidated financial accounts of the Zürcher Kantonalbank Group comprise the financial statements of the parent company, Zürcher Kantonalbank, as well as those of its directly and indirectly held essential subsidiaries, of which Zürcher Kantonalbank is holding of more than 50 Percent of the voting capital or which it controls in another way. The treatment of participations of less than 50 percent is explained in greater detail in the annual report in "Nonconsolidated participations" (p.98). (Annex 1B)

The presentation of the group financial statements is based on the economic view. The financial statements of the group companies are based on uniform, group-wide accounting standards.

#### b) Information about the Board of Directors, management and auditors

#### aa) Board of Directors

| Dr. Jörg Müller-Ganz | Chairman        |
|----------------------|-----------------|
| Dr. János Blum       | Deputy Chairman |
| Bruno Dobler         | Deputy Chairman |
| René Huber           | Member          |
| Henrich Kisker       | Member (new)    |

| Roger Liebi                | Member                                  |
|----------------------------|---|
| Mark Roth                  | Member                                  |
| Peter Ruff                 | Member                                  |
| Anita Sigg                 | Member                                  |
| Walter Schoch              | Member (new)                            |
| Amr Abdelaziz              | Member (new)                            |
| Rolf Walther               | Member                                  |
| Stefan Wirth               | Member                                  |
| bb) Committee of the Board |   |
| Dr. Jörg Müller-Ganz       | Chairman                                |
| Dr. János Blum             | Deputy Chairman                         |
| Bruno Dobler               | Deputy Chairman                         |
| cc) Executive Board        |   |
| Martin Scholl              | CEO                                     |
| Christoph Weber            | Head Private Banking, Deputy CEO        |
| Dr. Jürg Bühlmann          | Head Logistics                          |
| Daniel Previdoli           | Head Products, Services & Directbanking |
| Dr. Stephanino Isele       | Head Institutionals & Multinationals    |
| Roger Müller               | Head Credit Office                      |
| Rudolf Sigg                | Head Finance                            |
| Heinz Kunz                 | Head Corporate Banking                  |

# dd) External auditors / group auditors

Ernst & Young AG, Maagplatz 1, 8005 Zurich serves as the external auditor under corporate law and banking law and is the Group auditor.

### c) Business activities

# aa) Core business

Zürcher Kantonalbank conducts the business of a universal bank. It does not enter into any transactions for its own account which subject it to disproportionately large risks.

The field of business activities geographically comprises the Zurich economic area. Transactions in the rest of Switzerland and abroad are permitted to the extent the bank is not subject to any disproportionately large risks. The details of the business activities are governed by the business regulation.

# bb) Court, arbitration and administrative proceedings

Zürcher Kantonalbank is not affected by court, arbitration or administrative proceedings which could have a significant negative impact on its economic situation, nor are such proceedings threatened to the best of the knowledge of the executive bodies of Zürcher Kantonalbank.

# d) Capital

# aa) Capital structure

Zürcher Kantonalbank is very satisfied with the figures achieved in the 2018 financial year. The return on equity achieved 7.1 percent, 61.4 percent was the result of the cost/income ratio. Zürcher Kantonalbank has systematically strenghtened its capital base in recent years. The core capital of the Zürcher Kantonalbank comprises the endowment capital.

At the end of 2018 Zürcher Kantonalbank had a total capital ratio of 20.2 percent. This exceeded clearly the regulatory required minimum of 14.7 percent (including anti-cyclical buffer). It does not include the CHF 575 million endowment capital that might be called upon from the canton of Zurich. Use of the callable endowment capital would raise the total capital ratio by around 0.9 percentage points.

Following the categorisation as a nationally systemically important bank in 2013, Zürcher Kantonalbank now is subject to strict capital and liquidity requirements. From the end of 2014 to the end of 2018, the total risk-weighted capital requirements amounted to 14 percent (excluding the anti-cyclical buffer) of the risk-weighted positions (RWA). The unweighted capital requirement at the end of 2018 amounted to 4 per cent of total exposure. As of 1 January 2019, the total risk-weighted capital requirements for Zürcher Kantonalbank consist of a going concern requirement consisting of a base requirement of 12.86 percent (excluding the anti-cyclical buffer) of RWA plus surcharges of 0 percentent size. The unweighted capital requirement (going concern) will be 4.5 per cent from 1 January 2019. Both risk-weighted and unweighted, Zürcher Kantonalbank must meet a gone-concern requirement in the form of additional loss-absorbing funds. It will be introduced linearly over a period of 7 years from 1 January 2019 and will amount to 40 percent of the going-concern requirements at the end of the transition period in 2026.

The Bank obtains further equity capital by accumulating reserves. As of 31 December 2018, retained earnings came to CHF 8,445 million before the appropriation of profit (2017: CHF 8,026 million).

# bb) Outstanding conversion and option rights and bonds

As of the reporting date for the financial statements for the 2018 business year, there were no option rights outstanding.

As of the reporting date for the financial statements for the 2018 business year, Zürcher Kantonalbank had certificates of deposit (*Kassenobligationen*) outstanding of more than CHF 167 million (2017: CHF 191 million), bonds outstanding of more than CHF 11,666 million (2017: CHF 12,419 million) and Pfandbrief bonds of CHF 9,463 million (2017: CHF 9,275 million) outstanding.

# cc) Participation rights in its own capital

As of the date of this Issuance Programme, Zürcher Kantonalbank held no participation rights in its own capital.

# e) Rating

As of the date of this document, the ratings assigned by the rating agencies to Zürcher Kantonalbank are as follows:

| Rating Agency   | Date              | Long-term |
|-----------------|-------------------|-----------|
| Standard&Poor's | 18 December 2018  | ААА       |
| Moody's         | 7 February 2019   | Ааа       |
| FitchRatings    | 26 September 2018 | AAA       |

# f) Financial reports

Annex 1 contains the financial reports for the business years 2017 (Annex 1A) and 2018 (Annex 1B, as audited by the auditors). The reporting date for the last audited financial report is 31 December 2018 and is therefore not older than 18 months before the date of this Issuance Programme.

The audit report of the auditors can be found on page 176 ff. of the financial report for the 2018 business year (Annex 1B) and on page 166 ff. of the financial report for the 2017 business year (Annex 1A).

# g) Current business developments and business prospects

For the financial year 2019, a persistently challenging environment is expected, however, there is confidence that, thanks to the solid foundation of Zürcher Kantonalbank, its balanced business model and its clear strategy, in 2019 a pleasing result will be generated. Despite significant challenges on the geopolitical agenda such as the trade conflict between the US and China, the Brexit and unresolved structural problems in the EU, Zürcher Kantonalbank expects global economic growth to continue in 2019, although at a much slower pace.

In the years ahead, Zürcher Kantonalbank will systematically expand its leading position as a full-service bank that is well-positioned in strategic terms. It will take account of the potential risks in all its business decisions and act in a responsible manner in dealing with its owners and stakeholders.

# h) No material adverse changes in assets, financial condition and income

There have been no material adverse changes in assets, financial condition and income since the financial statements 2018 business year.

# B. Zürcher Kantonalbank Finance (Guernsey) Limited

#### a) General information

#### aa) Name, registered office and principal place of business

Zürcher Kantonalbank Finance (Guernsey) Limited, Regency Court, Glategny Esplanade, St. Peter Port, Guernsey GY1 3AP, Channel Islands.

#### bb) Incorporation, duration

Zürcher Kantonalbank Finance (Guernsey) Limited was incorporated on 17 November 2000. The duration is not limited.

# cc) Legal authorization, legal form

Zürcher Kantonalbank Finance (Guernsey) Limited is a limited liability company in the form of a so-called "Non-Cellular Company Limited by Shares" under the laws of Guernsey. The fully paid equity capital amounts to one million Swiss francs (CHF 1,000,000).

#### dd) Purpose

The statutory purpose of the company is to engage in business as a finance company and in the borrowing of funds through the issue of financial instruments of all types.

# ee) Register

The first entry into the Commercial Registry in St. Peter Port was made on 17 November 2000.

# ff) Group

Zürcher Kantonalbank Finance (Guernsey) Limited is a 100-percent subsidiary of Zürcher Kantonalbank.

# b) Information about the board of directors, management and auditors

### aa) Board of directors

The following persons are members of the board of directors

| Felix Oegerli       | Chairman      | Employee of Zürcher Kantonalbank                          |
|---------------------|---------------|---|
| Samuel Stadelmann   | Vice-Chairman | Employee of Zürcher Kantonalbank                          |
| John William Renouf | Member        | Independent consultant, Guernsey                          |
| Paul Hodgson        | Member        | Managing Director of Butterfield Trust (Guernsey) Limited |

# bb) Administration

The operative administration of Zürcher Kantonalbank Finance (Guernsey) Limited is performed by Butterfield Trust (Guernsey) Limited, P.O. Box 25, Glategny Explanade, St. Peter Port, Guernsey GY1 3AG, Channel Islands.

# cc) External audit firm

Ernst & Young LLP, 14 New Street, St. Peter Port, Guernsey GY1 4AF, Channel Islands acts as the external audit firm.

# c) Business activities

### aa) Main activity

Zürcher Kantonalbank Finance (Guernsey) Limited issues structured financial products and sells these to Zürcher Kantonalbank which places them in the market.

#### bb) Court, arbitration and administrative procedures

Zürcher Kantonalbank Finance (Guernsey), Guernsey is not involved in any court, arbitration or administrative proceedings which could have an adverse effect on its financial condition, nor to the best knowledge of the directors, officers and external auditors of the Zürcher Kantonalbank are any such proceedings threatened.

# d) Capital

#### aa) Capital structure

The issued share capital of Zürcher Kantonalbank Finance (Guernsey) Limited is one million Swiss francs (CHF 1,000,000) and is divided into one thousand (1,000) shares with a par value of one thousand Swiss francs (CHF 1,000) each. The Zürcher Kantonalbank is the owner of all of the shares of Zürcher Kantonalbank Finance (Guernsey) Limited.

#### bb) Outstanding conversion and option rights and bonds

As of the reporting date for the financial statements for the 2018 business year, there were no conversion or option rights in respect of its own share capital outstanding.

# cc) Participation rights in its own capital

As of the date of this Issuance Programme, Zürcher Kantonalbank Finance (Guernsey) Limited held no participation rights in its own share capital.

# e) Annual financial statements

Annex 2 contains the financial reports for the business years 2017 (Annex 2A) and 2018 (Annex 2B), as audited by the external auditors. The reporting date for the last audited financial report is 31 December 2018 and is therefore not more than 18 months before the date of this Issuance Programme.

The report of the auditors can be found on page 3 of financial report for the business year 2018 (Annex 2B) and on page 3 of financial report for the business year 2017 (Annex 2A).

### f) Current business developments and business prospects

Political and regulatory changes will continue to affect the banking sector in 2019. Despite a challenging climate, Zürcher Kantonalbank Finance (Guernsey) Limited is convinced it will be able to generate excellent results. It remains determined to systematically expand its leading market position among providers of structured products in Switzerland. It will take account of the potential risks in all its business decisions and act in a responsible manner towards its owner and stakeholders.

### g) No material adverse changes in assets, financial condition and income

There have been no material adverse changes in assets, financial condition and income since the reporting date of the financial statements for the 2018 business year.

# III. INFORMATION ABOUT THE DERIVATIVES

#### A. Legal Basis

The purpose of this Issuance Programme is the (public) offer of the Derivatives series issued from time to time by the relevant Issuer on the basis of a resolution of the relevant corporate authority.

#### B. Statement respecting the CISA

Derivatives issued under this Issuance Programme are not collective investments within the meaning of the CISA. They are not subject to any approval requirement nor to supervision by FINMA, and investors do not enjoy the specific investor protection provided under the CISA. The issuer risk is borne by investors.

#### C. Covered categories of Derivatives and economic characteristics

The Derivatives covered by this Issuance Programme are Structured Products issued by an Issuer the investment returns of which are derived from one or more Underlyings. The value of the Derivatives is materially dependent on the positive (so-called "bull derivatives") or negative (so-called "bear derivatives") change in value of one or more Underlyings. The Underlyings for a Derivatives Series can be one or more completely different financial investments (see Section IV below).

#### a) Categorization

The Derivatives issued under this Issuance Programme can be fundamentally allocated to the Derivatives categories below. The Issuers are guided in this regard by the categorization used by the Swiss Structured Products Association ("SSPA") which is also used by SIX Swiss Exchange and SIX Structured Products Exchange Ltd, respectively. The Issuer is free to issue under this Issuance Programme other Derivatives than those listed in the table below.

| SSPA Derivative Map / Categorization                            | Product Type Number |
|---|---------------------|
| SIX Structured Product Exchange                                 |                     |
| Investment Products   | 1                   |
| Capital Protection  | 11                  |
| Capital Protection Certificate with Participation               | 1100                |
| Capital Protection Certificate with Barrier                     | 1130                |
| Capital Protection Certificate with Twin-Win                    | 1135                |
| Capital Protection Certificate with Coupon                      | 1140                |
| Yield Enhancement   | 12                  |
| Discount Certificate  | 1200                |
| Barrier Discount Certificate                                    | 1210                |
| Reverse Convertible   | 1220                |
| Barrier Reverse Convertible                                     | 1230                |
| Express Certificate without Barrier                             | 1255                |
| Barrier-Express Certificate                                     | 1260                |
| Participation   | 13                  |
| Tracker Certificate   | 1300                |
| Outperformance Certificate                                      | 1310                |
| Bonus Certificate   | 1320                |
| Bonus Outperformance Certificate                                | 1330                |
| Twin Win Certificate  | 1340                |
| Investment Products with reference debtors                      | 14                  |
| Referencedebtor-Certificate with conditional Capital Protection | 1410                |
| Referencedebtor-Certificate with Yield Enhancement              | 1420                |
| Referencedebtor-Certificate with Participation                  | 1430                |
| Leverage Products   | 2                   |
| Warrant   | 2100                |
| Spread Warrant  | 2110                |
| Warrant with Knock-Out  | 2200                |
| Mini-Future   | 2210                |
| Constant Leverage Certificate                                   | 2300                |

# b) Important economic characteristics of the individual Derivatives

Investors can obtain information about the important economic characteristics of the individual categories of Derivatives in the following sections. Derivatives in the various categories may have characteristics which partially or significantly deviate from those of the described categories of Derivatives. Investors in such products will find the exact description of the economic characteristics in the relevant (indicative) terms sheets, as well as in the Final Terms.

# aa) Capital protected products

Capital protected products are Derivatives with an asymmetrical risk profile, for which the Issuer usually guarantees a specific or a minimal redemption amount. The level of the capital protection is set by the Issuer at the time of the Issuance and indicates the percentage of the nominal or par value that the investor will be assured on the Settlement Date, regardless of the value of the Underlying (Minimum Redemption Amount). The capital protection only applies at the end of the term or at maturity and can be – depending on the terms of the issue – below 100% of the Nominal Value. Capital protection therefore does not mean that the full nominal or par value or the invested capital will be fully repaid at maturity in every case. Pursuant to the provisions of the SSPA, there is capital protection in the event of any guaranteed redemption of at least 90% of the Nominal Value.

Capital protected products consist, considered economically, of a bond and an option component. The option component allows the investor to participate in the positive (bull derivatives) or negative (bear derivatives) performance of one or more Underlyings. At the same time, the risk of loss is limited by the bond component through the assurance of a Minimum Redemption Amount. A return which exceeds the Minimum Redemption Amount can, depending on the structure, be made as a one-time payment in connection the redemption and/or in the form of one or more payments during the term (Coupons). Additionally, the redemption amount can be set with or without a maximum amount (Cap).

When buying a Derivative of the category capital protection in the secondary market, it should be noted that the capital protection refers to the nominal amount and is lower relative to the invested capital if the Derivative is already listed above the Nominal or Nominal Value.

# (i) Capital Protection Certificate with Participation (1100)

Derivatives in the category Capital Protection Certificate with Participation provide capital protection with simultaneous participation in the positive (bull derivatives) or negative (bear derivatives) change in value of one or more Underlyings above (bull derivatives) or below (bear derivatives) a predefined exercise price. The possible increase in value (potential profit), depending on the product structure, is not limited (no Cap), or there is only a possibility of participation up to a specific threshold (with Cap). If the product is one with a Cap, this will be set out in the Final Terms of the relevant Derivatives Series.

If the value of the Underlying on the Final Fixing Date is below the exercise price (for bull derivatives) or above the exercise price (for bear derivatives), the Issuer pays the investor the Minimum Redemption Amount on the maturity date.

#### (ii) Capital Protection Certificate with Barrier (1130)

Derivatives in the category Capital Protection with Barrier provide capital protection with simultaneous participation in the positive (bull derivatives) or negative (bear derivatives) change in value of one or more Underlyings; although the possibility of participation lapses if the price of an Underlying reaches or exceeds a specified barrier within a specified time frame. Depending on the structure of the product, it is possible to participate both in the positive as well as the negative change in value of the Underlying or Underlyings. In this case, the product will have both an upper and a lower barrier.

If the price of the relevant Underlying touches or reaches or exceeds the specified barrier within the specified time frame, the possibility of participation in the positive (bull derivatives) or negative (bear derivatives) performance of the Underlying lapses and the investor receives the specified Minimum Redemption Amount on the maturity date. If the product is one with an upper and a lower barrier, when there is a breach of the barrier, only the participation lapses on the side in question. That means that if only the upper barrier is breached, participation in the negative change in value continues; if only the lower barrier is breached, participation in the positive change in value remains. If both barriers are breached, the investor receives the specified Minimum Redemption Amount on the maturity date. Depending on the product structure, a rebate payment is made in addition following breach of the barrier or barriers, which payment is generally set as a percentage of the par value or Nominal Value.

# (iii) Kapitalschutz-Zertifikat mit Twin-Win (1135)

Capital protection derivatives with Twin-Win are a combination of bull and bear derivatives that simultaneously participate in the positive and negative performance of one or more underlying instruments, whereby the possibility of participation expires if the price of the underlying instrument touches or breaks through a specified upper or lower barrier within a certain period of time.

If the price of the relevant Underlying touches or breaks through the specified upper or lower barrier within a certain time frame, the possibility of participation on the respective side lapses. This means that if only the upper barrier is breached, participation in the negative performance remains; if only the lower barrier is breached, participation in the positive performance remains. If both barriers are breached, the investor receives the specified minimum redemption amount on the maturity date. Depending on the product design, a rebate payment is made in addition after a breach of the barrier or barriers, which is usually shown as a percentage of the nominal or notional value.

# (iv) Capital Protection Certificate with Coupon (1140)

Derivatives in the category Capital Protection with Coupon provide capital protection with simultaneous participation in the positive (bull derivatives) or the negative (bear derivatives) change in the value of one or more Underlyings, although the profit from the change in value of the Underlying is paid by payment of one or more Coupons.

# (v) Referencedebtor-Certificate with contingent Capital Protection (1410)

In contrast to traditional Derivatives, reference debtor certificates (or structured products with a reference bond) also relate to a reference bond as certain events (hereinafter referred to as credit events) in relation to the reference bond (default or redemption event, as defined in the corresponding Final Terms) might have an adverse impact on the value and result in the early redemption of the respective product. Providing that no default or redemption event occurs with regard to the reference bond, reference debtor certificates normally work in the same way as a conventional structured product.

Reference debtor certificates are highly sophisticated and complex financial products whose particular characteristic is the fact that the investor not only assumes the usual risks such as market and currency risks and the risk of default by the structured product issuer, but also a corresponding additional risk via the reference bond.

The reference debtor certificate with contingent capital protection may have one or more reference debtors. In addition to the reference debtor's solvency (non-occurrence of a credit event), the redemption of the reference debtor certificate with contingent capital protection is also dependent on the issuer risk. Redemption will take place at least in the amount of the contingent capital protection on expiration provided that no credit event affecting the reference debtor has occurred. If a credit event affecting the reference debtor has occurred during the term, the contingent capital protection will be reference debtor certificate with contingent capital protection will be reference debtor certificate with contingent capital protection will be redeemed early in an amount to be determined.

During its term the price of the reference debtor certificate with contingent capital protection, which refers only to the nominal, not to the purchase price, may fall under the contingent capital protection, for example as a result of a negative assessment of the reference debtor's creditworthiness.

If during the term of the reference debtor certificate with contingent capital protection no credit event affecting the reference debtor has occurred, the investor will participate in the performance of the price of the Underlying.

#### bb) Yield Enhancement Products

Yield enhancement products are derivatives, whose redemption amount is limited to a maximum amount (cap) and which bear the risk of a total loss at redemption. They can be structured with or without (fix or variable) payments (Coupon) during the term.

#### (i) Discount Certificate (1200)

Derivatives in the category Discount Certificates are issued at a discount, i.e. a discount or a rebate compared to a direct investment in the Underlying. Redemtion on the Final Fixing Date is determined based on the price on the Final Fixing Date of the relevant Underlying. The maximum redemption amount is based on the Cap.

The redemption of these Derivatives is made, subject to any provisions in the Final Terms specifying otherwise, as follows: if the final closing price of the Underlying on the Final Fixing Date is at or above the Cap Level, the maximum amount (Cap Level) is repaid. Generally, the Cap Level corresponds to the Initial Fixing Value of the Underlying or Underlyings unless otherwise specified in the Final Terms of the relevant product. If the closing price of the relevant Underlying is below the Cap Level on the Final Fixing Date, a physical delivery will be made on the Redemption Date for each Discount Certificate (if the conditions provide for physical delivery) of a predefined number (ratio) of the relevant Underlyings (fractions thereof, even in the case of the purchase of several Discount Certificates, may not be aggregated and will always be paid in cash) or a cash payment in an equivalent amount. The amount of the cash payment is set on the basis of the price determined by the Relevant Exchange for the Underlying and the ratio.

# (ii) Barrier-Discount Certificate (1210)

Derivatives in the category Barrier-Discount Certificate are issued as Discount Certificates at a discount or with a rebate compared to a direct investment in the Underlying or Underlyings. The discount is usually lower than that of comparable discount certificates because a barrier is specified in relation to the value of the Underlying or Underlyings and when this barrier is reached or exceeded, depending on the specific terms of the Derivative, either the relevant Underlying is delivered or a cash payment in the amount of the ratio multiplied by the closing price on the Final Fixing Date is paid.

# (iii) Reverse Convertible (1220)

Derivatives in the category Reverse Convertibles distinguish themselves through payment of one or more Coupons. The determination of the redemption amount on the Settlement Date depends on the closing price of the Underlying or Underlyings on the Final Fixing Date.

The redemption of these Derivatives is typically made as follows: if the closing price of the relevant Underlying on the Final Fixing Date is at or above the Cap Level, the par value or nominal amount is repaid. The Cap Level generally corresponds to the Initial Fixing Value of the Underlying or Underlyings unless otherwise specified in the Final Terms of the relevant product. If the closing price of the relevant Underlying on the Final Fixing Date is below the Cap Level, physical delivery of a predefined number of units (ratio) of the relevant Underlying (with fractions, even where there is a purchase of several Reverse Convertibles, not being cumulative and always paid in cash) is made on the Redemption Date (if the terms provide for physical delivery) for each Reverse Convertible or a cash payment in an equivalent amount. The cash payment is determined based on the relevant price of the relevant Underlying specified at the Reference Exchange and the ratio. In every situation, a Coupon that is defined at Issuance as a percentage of the Nominal Value is paid on the Coupon Date or dates.

# (iv) Barrier Reverse Convertible (1230)

Derivatives in the category Barrier Reverse Convertible are equivalent to those in the category Reverse Convertible, although regardless of the closing price of the relevant Underlying the par value or Nominal Value is repaid if during the Observation Period the relevant barrier was never reached or exceeded. If the barrier was reached or exceeded and the relevant Underlying on the Final Fixing Date is below the Cap Level, then, analogously to the category Reverse Convertible, a physical delivery of the number of the relevant Underlyings as determined by the ratio (if the terms provide for physical delivery) or a cash payment in an equivalent amount is made. Generally, the Cap Level corresponds to the Initial Fixing Value of the Underlying or Underlyings unless otherwise specified in the Final Terms of the relevant product. In this category of Derivatives, the Coupon is owed in every situation.

# (v) Express Certificate without Barrier (Auto-Callable) (1255)

For derivatives in the Express Certificate without Barrier category, the maturity and redemption amount typically depend on the price of the Underlying on the defined observation day(s) or Final Fixing day(s). If the price of the relevant Underlying on an observation day is at or above the strike price (call level), these derivatives are repaid early immediately thereafter. In addition to the nominal value, the investor receives a Coupon whose amount was defined on the Initial Fixing day for the respective observation day. If the price of the relevant Underlying on the observation date is below the strike price, the product continues to run normally. Depending on the product design, Express Certificates may have a so-called memory effect; this enables Coupon payments that have not been made to be made up on a subsequent observation date, provided that the conditions for a Coupon payment are fulfilled on the observation date.

If no early redemption has taken place, the following redemption conditions apply on the Redemption Date: If the relevant Underlying is at or above the Cap Level on the Final Fixing Date, the redemption will consist of the Nominal or Notional Value and the Coupon defined at the time of issue. If the price of the relevant Underlying is below the Cap Level on the Final Fixing Date, a physical delivery of a predefined number of shares (ratio) of the relevant Underlying (cash settlement of fractions, no cumulation) or payment of a cash settlement amount in the corresponding amount will be made for each Express Certificate on the Redemption Date (if the conditions provide for physical delivery). Depending on the product design, a Coupon may also be paid out. The cash settlement amount is determined on the basis of the relevant price of the relevant Underlying and the ratio determined at the reference point.

# (vi) Barrier-Express Certificate (Auto-Callable) (1260)

Barrier-Express Certificates offer investors additional conditional protection for their investment against unfavourable performance of the underlying asset or assets in the form of a barrier compared with the category of Express Certificates without Barrier. If the price of the relevant Underlying is at or above the exercise price (call level) on an observation date, then these Derivatives are prematurely redeemed immediately thereafter. At the same time, the investor receives, in addition to the par or Nominal Value, a Coupon, the amount of which was defined as of the Initial Fixing Date for each relevant observation date. If the price of the relevant Underlying is below the exercise price on the observation date, but above the barrier, the product will not be redeemed early, but the investor receives a Coupon payment should this be provided in the terms of the product. If the price of the relevant Underlying is at or below the barrier on the observation date, the product will not be redeemed early, nor will any Coupon payment be made unless the product design guarantees a Coupon payment. Depending on product structure, Barrier-Express Certificates may have also a so-called memory effect.

If no early redemption has occurred, the following redemption conditions apply on the Settlement Date: If the relevant Underlying on the Final Fixing Date is at or above the Cap Level, the redemption consists of the par or Nominal Value, plus the Coupon defined at issue. If the price of the relevant Underlying is below the Cap Level, but above a defined barrier, the Nominal Value with or without a Coupon (depending on product design) will be repaid. If the price of the relevant Underlying on the Final Fixing Date is at or below the barrier, a physical delivery of a predefined number of units (ratio) of the relevant Underlying (cash settlement of fractions, no cumulation) is made for each Barrier-Express Certificate on the repayment date (if the terms provide for physical delivery) or a cash payment in an equivalent amount is made. The cash payment is determined based on the relevant price of the relevant Underlying specified at the Reference Exchange and the ratio.

# (vii) Referencedebtor-Certifikat with Yield Enhancement (1420)

Compared to traditional derivatives, reference debtor certificates (or structured products with a reference bond) also relate to a reference bond as certain events (hereinafter referred to as credit events) in relation to the reference bond (default or redemption event, as defined in the corresponding Final Terms) might have an adverse impact on the value and result in the early redemption of the respective product. If no default or redemption event occurs with regard to the reference bond, reference debtor certificates normally work in the same way as a conventional structured product.

Reference debtor certificates are highly sophisticated and complex financial products whose particular characteristic is the fact that the investor not only assumes the usual risks such as market and currency risks and the risk of default by the structured product issuer, but also a corresponding additional risk via the reference bond.

The reference debtor certificate with yield enhancement may have one or more reference debtors. In addition to the reference debtor's solvency (non-occurrence of a credit event), the redemption of the reference debtor certificate with yield enhancement is also pertinent on the issuer risk, provided that no credit event affecting the reference debtor has occurred. If a credit event affecting the reference debtor has occurred during the term, the reference debtor certificate with yield enhancement will be redeemed early at an amount to be determined on account of the credit event.

The value of the reference debtor certificate with yield enhancement may fall during the term, for example as a result of a negative assessment of the reference debtor's creditworthiness. If the Underlying is below the Cap Level at expiration, the Underlying will be delivered to the investor and/or cash settlement will be made provided that no credit event affecting the reference debtor has occurred. If the Underlying is above the Cap Level at expiration, the nominal will be repaid, provided that no credit event affecting the reference debtor has occurred. The opportunity to make gains is, however, limited to the amount of the Cap Level. Depending on the terms of the reference debtor certificate with yield enhancement, either a Coupon or discount on the Underlying may be granted.

A Coupon will be paid irrespective of the performance of the Underlying provided that no credit event affecting the reference debtor has occurred. The reference debtor certificate with yield enhancement may also include a barrier. Due to the higher risk, the addition of additional Underlying assets allows higher Coupons, larger discounts or lower barriers.

# cc) Participation Products

Participation products are derivatives with a payment profile that generally linearly reproduces the change in value of the Underlying and so makes it possible for the investor to participate in the performance of the Underlying. Depending on the structure of the product, a disproportionate participation in the positive performance of the Underlying is also possible. The redemption amount is theoretically unlimited, but there is, however, the risk of a total loss. They can be structured with or without payments during the term (Coupon) and do not have, or only have a limited capital protection.

Participation products can, depending on their structure, have a limited capital protection. This limits the potential loss in comparison to a direct investment in the Underlying so long as a certain threshold (a so-called barrier or knock-out) is not reached during the Observation Period. If the barrier is reached or exceeded (either above or below), the investor loses the (limited) capital protection. Derivatives in this category with limited capital protection may trade during the term at prices well below the Issuance price, even if the barrier has not been reached or exceed (either above or below).

The redemption in the case of Derivatives in this category can, depending on the structure or the Underlying, be made by payment of a cash Settlement Amount or the physical delivery of the relevant Underlying, adjusted in accordance with the ratio.

Participation products can be issued with a limited or unlimited term.

# (i) Tracker Certificate (1300)

Derivatives in the Tracker Certificate category permit an indirect investment in one or more Underlyings which are equally or unequally weighted. The profit and loss potential of these Derivatives corresponds to a large extent to that of the Underlying.

# (ii) Outperformance Certificate (1310)

Derivatives in the Outperformance Certificate category are typically characterized by a participation in the change in value of the relevant Underlying that is increased by a specified participation factor, i.e. disproportional and unlimited if the Underlying is above the Cap Level on the Final Fixing Date. The participation factor, however, ceases to apply if the closing price of the relevant Underlying on the Final Fixing Date is below the Cap Level. If the closing price of the relevant Underlying on the Final Fixing Date is below the potential return is basically comparable with that of the Underlying on which it is based. Depending on the product structure, a limit on profits (Cap) is also possible. Above the Cap Level, the investor participates in the change in value of the relevant Underlying up to the Cap in accordance with the participation factor, although the maximum return potential is achieved at the Cap.

# (iii) Bonus Certificate (1320)

Derivatives in the Bonus Certificate category are typically characterized by an unlimited participation in the performance of the Underlying. They also offer a limited capital protection, i.e., a minimum redemption in the amount of the bonus level. This limited capital protection and the minimum redemption cease to apply as soon as one or more of the Underlyings reaches or falls below the specified barrier during the Observation Period. The determination of the repayment on the Final Fixing Date depends on the price history and the price of the relevant Underlying: if the Underlying has not reached or has fallen below the barrier during the Observation Period or no Underlying has reached or fallen below the barrier, the repayment is made at the closing price of the relevant Underlying multiplied by the ratio, but at least, however, in the amount of the bonus level. If, however, the Underlying reached or fell below the barrier during the Observation Period or at least one of the Underlyings reached its barrier or fell below it, this results in either a physical delivery of the Underlying or the payment of a Cash Settlement Amount equal to the price of the Underlying multiplied by the ratio (physical delivered, not cumulative).

# (iv) Bonus-Outperformance Certificate (1330)

Derivatives in the Bonus Outperformance Certificate category, are essentially similar to the Derivatives in the category Bonus Certificate, with the difference that they allow for a disproportionate (i.e., leveraged) participation in the performance of the relevant Underlying above the Cap Level.

# (v) Twin Win Certificate (1340)

Derivatives in the Twin Win Certificate category are generally suitable for investors who expect a certain price performance of the Underlying, but also want to profit from the opposite performance up to a certain level (i.e., the barrier). Even though protection for the invested capital is generally provided with this mechanism until the barrier is reached, the investor in this Derivative bears the market risk of the relevant Underlying.

Three scenarios are possible on the Final Fixing Date: If the price of the relevant Underlying exceeds the Cap Level, the investor participates one-to-one or disproportionately in the performance of the Underlying. If the price of the relevant Underlying is below the Cap Level and the Underlying did not touch or fall below the barrier during the Observation Period, then losses on the Underlying are converted into profits. If the price of the relevant Underlying is below the Cap Level and the Observation Period, either a Cash Settlement Amount is paid corresponding to the price of the Underlying on the Final Fixing Date multiplied by the ratio or, if provided for, a physical delivery of the Underlying is made.

# (vi) Referencedebtor-Certificate with Participation (1430)

Compared to traditional derivatives, reference debtor certificates (or structured products with a reference bond) also have a reference bond as certain events (hereinafter referred to as credit events) in relation to the reference bond (default or redemption event, as defined in the corresponding Final Terms) might have an adverse impact on the value and lead to the early redemption of the product. Provided that no default or repayment event occurs with regard to the reference bond, reference debtor certificates normally work in the same way as a conventional structured product.

Reference debtor certificates are highly sophisticated and complex financial products whose particular characteristic is the fact that the investor not only assumes the usual risks such as market and currency risks and the risk of default by the structured product issuer, but also a corresponding additional risk via the reference bond.

The reference debtor certificate with participation may have one or more reference debtors. In addition to the reference debtor's solvency (non-occurrence of a credit event), the redemption of the reference debtor certificate with participation is also dependent on issuer risk provided that no credit event affecting the reference debtor has occurred. If a credit event affecting the reference debtor has occurred during the term, the reference debtor certificate with participation will be redeemed early at an amount to be determined on account of the credit event.

The value of the reference debtor certificate with participation may fall during the term, for example on account of a negative assessment of the reference debtor's creditworthiness.

If during the term of the reference debtor certificate with participation no credit event affecting the reference debtor has occurred, the investor will participate in the performance of the price of the Underlying.

#### dd) Leverage Products

Leverage products are Derivatives whose invested amount is subject to a leverage effect both in the direction of profits or losses, i.e., changes in the value of the Underlying have a disproportionate effect on the value and/or the redemption amount than would be the case with a direct investment in the Underlying. The leverage effect permits the investor in a leveraged product to use less capital than if he or she would invest directly in the Underlying. As a result of the leverage effect, higher profits are possible, on the one hand, than in the case of a direct investment in the Underlying, but there is the risk of a total loss of the invested capital.

# (i) Warrant (2100)

The essential attribute of Derivatives in the Warrant category is the so-called leverage effect. Changes in the market value of the Underlying or even the absence of expected changes can have a disproportionate effect on the value of the Derivative, up to a total loss.

Depending on the structure, investors profit from rising (call warrants) or falling (put warrants) market prices for the Underlying. The leverage effect causes the value of the Derivatives to react proportionally more strongly to changes in the market price of the Underlying. The leverage is the result of the fact that the invested capital in a warrant is smaller than for a direct investment in the Underlying. The leverage effect acts in both directions – not only to the advantage of the holder of the warrants or the option holder in the case of favorable developments in the market price of the Underlying. The leverage of the warrants or the option holder in the case of favorable developments in the market price of the Underlying. The risk with an investment in the warrant is therefore greater than that of a direct investment in the Underlying. The potential for loss comprises the total of the invested capital (the so-called option premium).

Considering the limited term of the warrant, the investor or purchaser cannot expect a timely recovery of a negative performance of the Underlying for the investor. Warrants expire worthless if the market value of the Underlying lies below (call warrants) or above (put value) the exercise price or the strike. The loss equals the price paid for the warrant (option premium).

In the case of warrants with physical delivery of securities, the investor acquires a claim on the delivery (call warrants) or purchase (put warrants) of a quantity of the Underlying at a price specified in advance, the exercise price or strike.

In the case of warrants with Cash Settlement, the investor acquires a claim for the payment of a Cash Settlement Amount which is the difference between the exercise or strike price and the market price of the Underlying when exercised or on the expiration date.

# (ii) Spread Warrant (2110)

Similar to products in the Warrants category, spread warrants are characterised by a leverage effect, resulting in a corresponding disproportionately large potential for gains or losses (including the total loss of the entire amount invested; see the relevant explanations in section III.C.dd)(i) "Warrants").

The risk of investing in spread warrants is greater than that of a direct investment in the Underlying. On expiration the spread warrants allow their Intrinsic Value to be preserved. In contrast to conventional warrants, the Intrinsic Value and the associated potential for gains are limited by a spread consisting of an Upper and Lower Exercise Price.

Call spread warrants enable investors to benefit from rising prices of the Underlying, while put spread warrants allow them to benefit from falling prices; call spread warrants expire worthless, limited to the amount invested, if the Final Fixing Value of the Underlying is below the Lower Exercise Price; by contrast, put spread warrants expire worthless, limited to the amount invested, if the Final Fixing Value of the Underlying is above the Upper Exercise Price.

As mentioned above, the potential gains of an investment in spread warrants are limited, namely by the Upper Exercise Prices in the case of call spread warrants and by the Lower Exercise Prices in the case of put spread warrants. This means that an investor may benefit from rising (in the case of call spread warrants) or falling (in the case of put spread warrants) prices of the individual Underlyings up to a maximum of these (price) thresholds or threshold values. Once the said threshold values have been reached, the highest possible payout of a spread warrant has been reached. The daily loss of time value, which increases towards the end of the term, requires regular monitoring of the spread warrants.

# (iii) Warrant with Knock-Out (2200)

Derivatives in the Warrant with Knock category-Out are typically characterized by immediate expiration, without value, if the price of the Underlying falls below a barrier (in the case of a "knock-out call", through which the investor profits from a rising market price) or rises above a barrier (in the case of a "knock-out put", through which the investor profits from a falling market price). Generally, the closer the current market price is to the barrier, the greater the leverage effect. The price of the Derivatives in this category is, in contrast to the price of warrants, only marginally influenced by volatility or current market value. Upon expiration of the instrument, the repayment is based on the current market price of the Underlying and the exercise price or strike.

# (iv) Mini-Future (2210)

Derivatives in the Mini-Future category combine characteristics of futures contracts (i.e., contracts in which two parties agree to settle a transaction at a later time) and those of leverage products. Because of the generally low capital requirement, they permit a disproportional participation in the price change of the Underlying and may, therefore, be used for speculation or to hedge positions. Derivatives in this category do not have a fixed term (open-ended), but nevertheless expire immediately upon the market price falling below the barrier (Long Mini-Futures) or exceeding the barrier (Short Mini-Futures), the so-called stop-loss levels, although in this case the repayment of the realized residual value is made. Because of these characteristics, these Derivatives constitute an alternative to classic, exchange-traded futures contracts. In contrast to Derivatives in the warrants category, these Derivatives do not have a time value (Zeitwert), accordingly the price of these Derivatives during their term approximates their intrinsic value, i.e., (in the case of long mini-futures) the market price of the Underlying minus the current financing level or (in the case of short mini-futures) the current financing level minus the market price of the Underlying.

#### (v) Constant-Leverage Certificate (2300)

Derivatives of the Constant Leverage Certificate category enable investors to make long-term leveraged investments in an Underlying where the risk and the leverage are kept constant. Derivatives of this category do not have a fixed term (they are open-ended).

The main characteristic of this derivative is the constant leverage. The amount invested by the investor is periodically invested with the performance of the Underlying and the desired leverage. The leverage and the current price of the Underlying provide the basis for recalculating the amount invested with the nearest price of the Underlying to ensure that the leverage remains constant. The subscription ratio of the Constant Leverage Certificate is adjusted to reflect the reallocation. If the stop-loss level is reached, the Certificate is closed out and the loss is limited or a potential obligation to make additional contributions is prevented. However, the stop-loss level only serves as a trigger for liquidation and does not represent an indication of the effective repayment amount that can be achieved.

# D. Issuance and Sale of Derivatives

This section sets forth the conditions applicable to the procedures for the Issuance of Derivatives. They apply to all Derivatives which are issued by the Issuer under this Issuance Programme.

# a) Terms and conditions

The indicative term sheet is merely a marketing document which contains the most important economic terms of the relevant Derivatives Series (if marked as "indicative", merely in indicative form; see Section III.C.a)cc). It does not create any rights in relation to the Issuer and the Issuer can, in its sole discretion, change or supplement or even cancel it at any time.

The rights and obligations of Holders of the Derivatives in relation to the Issuer are determined solely by the Derivatives Terms specified in this Issuance Programme, as well as the Final Terms.

# aa) Subscription

Derivatives can, as specified in the relevant (indicative) term sheet for an individual Derivatives Series, be subscribed for during the subscription period during normal banking business hours at the Issuer or any branch of the Zürcher Kantonalbank. Any minimum or maximum amounts for the subscription will be specified in the (indicative) term sheet for an individual Derivatives Series.

The Issuer reserves the right, in its sole discretion, to shorten, lengthen or cancel the subscription period. The Issuer is further not obliged to accept subscriptions and can take distance from the issue of an entirely placed derivatives series.

# bb) Allocation

During the subscription period, all subscriptions will be received without any special subscription procedure until the maximum issue size is reached. After the maximum issue size is reached, no further subscriptions will be accepted and the subscription period will be closed without notice. The Issuer will decide, in its sole discretion, whether an allocation will be made.

The results of the offer will not be disclosed. Persons who have subscribed will be informed about their allocation pursuant to the offer or about other matters in respect of the issue by SIX SIS AG and their own bank.

#### cc) Determination of the issue price

The issue price of a Derivatives Series will be determined by the Calculation Agent on the Initial Fixing Date on the basis of the then current market situation and the price or level of the Underlying, consistent with the terms published in the (indicative) term sheet. In the indicative term sheet, the issue may specify "indicative" issue prices which are based on the fair values at the time of the publication of the relevant indicative term sheet. "Indicative" issue prices are not binding on the Issuer and the legally binding issue price will be specified in the final term sheet and in the Final Terms for a Derivatives Series.

The determination [of the issue price] is made on the basis of the fair value of the components of the Derivatives in accordance with financial mathematical methods. The issue price can include a surcharge that is not apparent to the investor, the amount of which is determined in the discretion of the Issuer and that over time reduces the market price set for the Derivative. Margins and fees can be included in the calculation of the issue price, which in part may be paid as distribution fees to distribution companies. Sales commissions, which may be paid in the form of a discount on the issue price, as compensation for part of the issue price or in the form of other one-off and/or recurring fees, are disclosed by the issuer in the Final Terms. Enquiries regarding sales commissions may be sent to the issuer / lead manager. No duty of disclosure exists.

No subscription or issue costs are imposed on the buyer or subscriber by the Issuer.

#### dd) Placement and Underwriting

If not specified otherwise in the (indicative) Term Sheet for a Derivatives Series, the placement will be made by the Zürcher Kantonalbank (referred to in this capacity as the "Lead Manager").

#### b) Listing and admission to trading

To the extent not otherwise specified in the (indicative) Term Sheet or the Final Terms for a Derivatives Series, a listing on the SIX Swiss Exchange and trading through SIX Structured Products Exchange Ltd. will be applied for in respect of all Derivatives issued under this Issuance Programme. The Issuer gives no guarantee that a Derivatives Series will, in fact, be listed on the SIX Swiss Exchange and admitted to trading through SIX Structured Products Exchange Ltd. There are no binding commitments from intermediaries in respect of secondary trading. Zürcher Kantonalbank intends, under customary market terms, to regularly provide ask and bid prices for the Derivatives, but it assumes no legal obligation to do so to the extent not otherwise specified in the Final Terms.

# c) Sales Restrictions

# aa) In general

To the extent not explicitly specified in the Final Terms, the Issuer has not taken any action and will not take any action to permit the public offer, the holding or the distribution of the offering documentation with respect to the Derivatives in any jurisdiction outside Switzerland. The delivery of this Issuance Programme or other Issuance documentation and the offer of the Derivatives may be restricted in certain countries by legal requirements. Persons which want to buy Derivatives are hereby requested by the Issuer to verify and adhere to the then applicable restrictions.

# bb) European Economic Area ("EEA")

In a member state of the EEA which has implemented the directive 2003/71/EG (the "Prospectus Directive"), the Derivatives, including the relevant documents may only be offered from (and including) the date of the entry into force of this implementation if this is permitted pursuant to the applicable law and other regulations; and

- (i) the public offer commences or is completed within twelve months after the publication of a prospectus in respect of the Structured Products approved by the relevant supervisory authority pursuant to the regulations of the member state where the offer originates and, to the extent a public offer is made in a different member state than the member state where the offer originates, a certification or approval from the supervisory authority of the member state where the offer originates has been issued; or
- (ii) an exception from the prospectus obligation exists, which is specified in the implementing legislation of the member state where the offer originates.

"Public offer" means (i) a communication directed at the public in any form and in any manner which contains sufficient information about the terms of the offer and the terms of the structured products to be offered to equip a person to decide whether to purchase of subscribe for the structured products, as well as (ii) any further specifications contained in the implementing legislation of the relevant member state in which the offer is made.

In a member state of the EEA which has not implemented the Prospectus Directive, a public offer in or from this jurisdiction can only be made if this is permitted under applicable law and other regulations and no obligations are imposed on the Issuer. The Issuer has not and will not take action to make a public offer, the holding or the distribution of documentation with respect to the Derivatives permissible in this jurisdiction if special action must be taken for this purpose.

# cc) United Kingdom ("U.K.")

An invitation to engage in investment activity (within the meaning of Section 21 of the FSMA) was / is only communicated or prompted in connection with the issuing or sale of derivatives in conditions in which Section 21(1) of the FSMA does not apply to the issuer; furthermore, all applicable provisions of the FSMA with regard to all activities in connection with derivatives conducted within or from the United Kingdom or in which the latter is otherwise involved were / are complied with.

In relation to derivatives with a term of less than one year, it should be noted that no derivatives are offered or sold except to persons whose normal business activity is to purchase, hold, manage or sell derivatives in accordance with the purpose of their business (as principal or agent) or where it can reasonably be assumed that they acquire, hold, manage or sell investments (as principal or agent) for their own business purposes, since the issuing of derivatives would otherwise constitute a violation by the issuer of Section 19 of the Financial Services and Markets Act of 2000 (the "FSMA").

# dd) United States of America ("U.S.A./U.S. persons")

The Derivatives have not been and will not be registered under the Securities Act of 1933 (the "Securities Act") in its current form and trading in the Derivatives has not been and will not be approved by the United States Commodity Futures Trading Commission (the "CFTC") under the United States Commodity Exchange Act (the "Commodity Exchange Act"). The Derivatives may not, directly or indirectly, be offered, sold, resold, delivered or traded at any time in the U.S.A. or to or for account of U.S. persons. Derivatives may not be exercised or redeemed for the benefit of a U.S. person or a person in the U.S.A. In this context, "U.S.A." means the United States of America (the states and the District of Columbia), its territories and possessions and other sovereign territory and "U.S. persons" means "U.S. per-

sons" as defined in Rule 902 of Regulation S under the Securities Act, as well as persons not falling under the definition of "Non-United States Persons" in accordance with Section 4.7 of the CFTC regulations.

### ee) Bailiwick of Guernsey ("Guernsey")

Derivatives issued by the Issuer Zürcher Kantonalbank Finance (Guernsey) Limited have not and will not be sold to persons in the Bailiwick of Guernsey.

# ff) Sanctions

The purchaser of a Derivative is obliged to comply with all applicable sanctions in connection with the acquisition or sale of the Derivative, if necessary, depending on the Derivative and currency, in particular US sanctions or EU sanctions.

#### E. Derivative Terms

The following provisions set forth the general derivatives terms and conditions to be applied in respect of all Derivatives which are issued by the Issuer under this Issuance Programme. These comprise the general investment terms and conditions in general form issued under this Issuance Programme ("General Derivative Terms and Conditions", see Section III.E.a)), as well as the special terms applicable to the individual categories of Derivatives (see Section III.E.b) and they apply, subject to any contrary provisions in the specific terms for an individual series of Derivatives which are included in the relevant Final Terms.

The general derivatives terms included in this Issuance Programme and the special conditions generally do not include all of the information that is necessary for an investment decision because the structuring of the individual Derivatives Series is made immediately before the beginning of the offer and not already at the time of the publication of this Issuance Programme. The Issuance Programme therefore provides a summary of the possible structure of the derivates, which summary is not exhaustive.

The Final Terms for a specific Derivatives Series may in part deviate significantly from the following general derivatives terms and the special conditions. The investor should, without fail, read and understand the Final Terms, in particular the differences from the typical conditions described below, before he or she invests in a specific Derivative.

#### a) General derivatives terms

#### aa) Aggregate amount and further Issuances

The aggregate amount of a Derivatives Series as well as the number of Derivatives or the nominal amount are indicated in the relevant Final Terms. This statement does not give any information about the amount of a Derivatives Series that was actually publicly placed in the market by the Issuer or the Lead Manager.

The Issuer is entitled to issue further Derivatives of the same kind at any time and without the consent of the Holders of the Derivatives so that, with the previously issued Derivatives, they constitute a single issue and increase its size. Such an increase will be published pursuant to Section III.G.

The Issuer or other Zürcher Kantonalbank companies are entitled at any time during the term of the Derivatives to buy and sell these. These companies have no obligation to inform the Holders of the Derivatives about such a purchase or sale.

Derivatives which the Issuer did not place in the market or repurchased in the market may, without notice to the Holders of the Derivatives, be cancelled, held as trading assets, resold or used in another way.

#### bb) Currencies

Derivatives can be issued in Swiss francs (CHF) or another freely convertible currency. The currency of a Derivatives Series is specified in the Final Terms. To the extent not otherwise specified in the Final Terms, all payments from a Derivatives Series are to be made in the specified currency of the relevant series.

#### cc) Issue price

The issue price is set on a binding basis in the relevant Final Terms. The price can be indicated as price per unit or as nominal amount / par value, with a percentage increase or discount, expressed as a percentage of the nominal. Regarding the specification of the issue price and indicative price information, reference is made to the provisions in Section D.a)cc).

Derivatives are transferable only in units of one Derivative or an integral multiple thereof to the extent the Final Terms (Final Terms) of a Derivatives Series do not contain any contrary provisions.

# dd) Interest payments, dividends and other distributions

# (i) General

To the extent not explicitly specified in the Final Terms for a Derivatives Series, the Holder of the Derivatives has no right to the payment or reinvestment of dividends, interest or other distributions in respect of dividends, interest or other distributions that are paid in respect of the Underlying.

For Derivatives for which the Issuer has the obligation to pay interest, this will be specified as an annual interest rate (% p.a.) in the relevant Final Terms.

The interest amount is calculated for each interest period on the basis of the actual number of days in the interest period, divided by 360 unless otherwise specified in the provisions of the Final Terms of a Derivatives Series.

# (ii) Rights from Underlyings that are delivered

Underlyings acquired in connection with the redemption of the Derivatives give the right to all dividends payable (in the case of shares) or any other rights linked to the Underlying after the Final Fixing Date or after the date of exercise. If the date of dividend maturity occurs on the same date or before the Final Fixing Date, respectively on the Exercise Date, the Underlying will be delivered ex-dividend.

#### ee) Interest payment dates

The applicable interest payment dates for a Derivatives Series are specified as calendar days in the relevant Final Terms. If such a specification is missing, interest and distributions are paid on the due date for redemption.

# ff) Term and Expiration

The term of the individual Derivatives Series is specified in the relevant Final Terms. The term can be unlimited (openend).

If the term for a Derivatives Series is limited, it begins on the Issue Date and ends on the Redemption Date, subject to an early maturity date on account of a termination, exercise of an option or on account of a barrier being reached.

If the term for a Derivatives Series is unlimited, the conditions under which the Issuer (right of cancellation and/or redemption) or the Holder (right of cancellation and/or redemption) of a Derivative may properly terminate the Derivative are specified in the Final Terms.

With the exception of Derivatives in the category Leveraged Products (see Section III.E.b)aa)) as well as Section III.E.B)aa)) and open-ended Derivatives, all Derivatives issued under this Issuance Programme expire without special notice from the Issuer or the Holder automatically on the date of redemption or the delivery of the security, as specified in the relevant Final Terms.

The Final Terms for a Derivatives Series may provide that the term of the Derivatives is terminated immediately upon the occurrence of certain events, e.g., if a certain barrier is reached by the Underlying. In this case, the Redemption Date, the redemption amount or the date of the delivery of the Underlying will be determined by the Issuer or the Calculation Agent in accordance with the provisions in the Final Terms and published according to Section III.G. The redemption amount may also be zero.

#### gg) Redemption methods

The rdemption modalities of each derivative series are set out in the respective Final Terms and may include the payment of a cash settlement and / or the physical delivery of the Underlying assets.

The Final Terms for a Derivatives Series may provide that the term of the Derivatives is terminated immediately upon the occurrence of certain events, e.g., an Underlying reaching a certain barrier. The Final Terms specify whether the Issuer pays a Cash Settlement Amount in this situation (although the repayment amount paid may also be zero) or if it is required to deliver Underlyings or deliverable assets.

# (i) Cash Settlement

If the Issuer is required to pay a redemption amount, such amount is specified in the Final Terms for the relevant Derivatives Series, either as a fixed amount, as a percentage of the par value or nominal amount or as an amount deter-Issuance Programme 2019 33 / 53 mined by the Issuer or the Calculation Agent on the basis of a formula (with respect to Derivatives in the category Warrants, see also section III.E.b)aa)(iii))

The payment of the Cash Settlement Amount is made in the currency specified in the Final Terms of the respective Derivatives Series by a credit to the account of the relevant Clearing System for the account of the Holder of the Derivatives.

#### (ii) **Physical delivery**

To the extent the Issuer is required to physically deliver Underlyings resp. deliverable assets, the number of Underlyings to be delivered is specified in the Final Terms for the relevant Derivatives Series, either as a fixed number or as number to be calculated by the Issuer or the Calculation Agent on the basis of a formula (with respect to Derivatives in the category Warrants, see also section III.E.b)aa)(iii)).

For each individual Derivative, any fractions [of an Underlying] are settled by a cash payment based on the closing price of the Underlying on Final Fixing Date. The aggregation of such fractions for all acquired Derivatives held by an investor for the purpose of delivering an Underlying or a deliverable asset will not be made even if the fractions would, in pure mathematical terms, result in delivery of more Underlyings. If the delivery of Underlyings or deliverable assets is impossible on the delivery date, the Issuer has the right to pay the equivalent cash value of the Underlying in the currency of the Derivatives Series. The equivalent cash value will be calculated by the Issuer or the Calculation Agent on the basis of the closing price of the Underlying on the delivery date.

#### **Termination / early redemption** hh)

#### (i) New taxes, laws, administrative measures or other reasons

The Issuer reserves the right of early termination in respect of all Derivatives issued under this Issuance Programme for tax reasons (such as, e.g., in the situation in which the Issuer would be required on account of new tax laws to pay additional amounts which result from the withholding or deduction of current or future taxes, imposts, charges or fees, regardless of type), as well as in the case of limitations in respect of its activities as Issuer through new laws or administrative measures (e.g., if it is prohibited under supervisory law from issuing derivatives).

The right of early termination is also available to the Issuer upon the occurrence of an extraordinary event in accordance with Section III.E.a)oo)(ii), to the extent that, in the opinion of the Issuer, an appropriate adjustment, for whatever reason, is not possible.

The Issuer also has the right to terminate prematurely with respect to derivatives for which there are no more outstanding shares.

An early termination is effected by a notice pursuant to Section III.G. The termination becomes effective at the time of the notice to the extent that the notice does not specify a following Business Day. In this case, the term of the Derivatives ends early. The Issuer pays a cash amount in the currency of the Derivative that is determined by the Issuer or the Calculation Agent in its absolute discretion, if applicable, taking into account the relevant market price of the Underlying and any costs incurred by the Issuer as a result of the termination (this amount also may be zero). The date for the redemption will be specified in the notice.

#### (ii) **Negative interest**

For Derivatives relating to a reference interest rate, the Issuer reserves the right of early termination at any time with respect to all Derivatives issued under this Issuance Programme in the event that the reference interest rate becomes a negative value, unless in the relevant Final Terms (Final Terms) otherwise is noted.

#### ii) Statute of limitation

Claims for payment in respect of the Derivatives lapse 10 years after their due date. Claims for the payment of interest in respect of the Derivatives lapse 5 after their due date.

#### jj) Taxes

#### (i) General

Potential investors should be aware that they may be required to pay taxes or other charges any levy in accordance with the laws and practice of the jurisdiction, in which the Derivatives issued under this Issuance Programme are transferred, or follow the legal rules of the country, which will then be applicable if the Underlying is considered to be shares and possibly the laws and practices of other jurisdictions. In certain jurisdictions there may not be any official

statements of tax authorities or court decisions in relation to derivatives. Potential investors should rely on the summarized tax information contained in this Issuance Programme or in the Final Terms, but should consult their own tax advisers about the tax implications of purchasing, selling and performances of Derivatives. Only those advisers can advise on the individual tax implications for a potential investor. Such individual tax implications in relation to a potential investor may have a negative impact on the returns, which a potential investor may receive under the Derivatives.

# (ii) Guernsey

Transfers and payments or deliveries of such Derivatives are not subject to any withholding tax in Guernsey. Furthermore, Guernsey does not levy any capital gains tax upon any gains made by non-Guernsey resident investors on such Derivatives.

### (iii) Swiss taxes

On 3 October 2017, the Federal Tax Administration issued the updated Circular Letter No. 15 concerning bonds and derivative financial instruments under the direct federal tax, the withholding tax, as well as the stamp duty (Issuance and transfer tax). The Derivatives issued under this Issuance Programme are categorized as derivative financial instruments as defined in Circular Letter No. 15.

The Issuer will specify in the Final Terms for each Derivatives Series which taxes, in its opinion, the relevant Derivative is subject to under the mentioned circular letter.

The information set forth in the Final Terms concerning taxation is merely a summary of how the Issuer understands the taxation of the relevant Derivatives Series under the then applicable law and current practice of the Federal Tax Administration in Switzerland. Because this summary does not take into account every aspect of Swiss tax law and, in particular, not the specific tax situation of an investor resident outside Switzerland, potential investors should obtain the advice of their personal tax adviser in respect of the tax consequences of the purchase, ownership, sale or redemption of the Derivatives, in particular the tax consequences in a different jurisdiction. In addition, it should be noted that the cantons may have a tax law system and practice that deviates from that of the Federal Tax Administration.

# (iv) Taxes and fees applicable to a transfer of Underlyings

Any fees, costs and taxes that arise in connection with the exercise of the rights linked to the Derivatives and the transfer of Underlyings (physical delivery) are to be borne by the Holder of Derivatives to the extent not otherwise specified in the Final Terms for an individual Derivatives Series.

# kk) Security

Subject to any provisions specifying otherwise in the Final Terms for a specific Derivatives Series, the Issuer's Derivatives are not secured.

In any case, all claims for payment against the Zürcher Kantonalbank are protected by the government guarantee of the Canton of Zurich pursuant to § 6 para. 1 of the Law concerning the Zürcher Kantonalbank, the text of which is: "The canton is liable for all liabilities of the bank to the extent that its own funds are not sufficient".

A Keep-Well Agreement entered into between Zürcher Kantonalbank Finance (Guernsey) Limited and the Zürcher Kantonalbank provides an indirect protection in respect of the payment claims of Zürcher Kantonalbank Finance (Guernsey) Limited's investors. In this Keep-Well Agreement, the Zürcher Kantonalbank has agreed to capitalize Zürcher Kantonalbank Finance (Guernsey) Limited so that investor and customer confidence in the Zürcher Kantonalbank Group is not endangered (the complete text of the Keep-Well Agreement is included in Annex 3). Investors should note that this contractual relationship has not been made as a guarantee for the benefit of third parties.

#### II) Status of the derivatives

To the extent not provided otherwise by mandatory provisions of law, the Derivatives constitute unsecured and unsubordinated liabilities of the Issuer which rank equally with each other and with all other unsubordinated liabilities of the relevant Issuer.

### mm) Applicable law and jurisdiction

The Derivatives issued under this Issuance Programme are subject to Swiss law.

All disputes between the Holders of the Derivatives, on one hand, and the Issuer, on the other hand, are subject to the jurisdiction of the ordinary courts of the Canton of Zurich, Switzerland, with the **Jurisdiction in Zürich**, with the possibility of an appeal to the Swiss Supreme Court in Lausanne, whose judgment is final. The Issuer Zürcher Kantonalbank

Finance (Guernsey) Limited chooses for this purpose a legal and special domicile in Switzerland at Zürcher Kantonalbank, Bahnhofstrasse 9, 8001 Zurich.

# nn) Calculation agent, Paying Agent and Exercise Agent

# (i) Calculation Agent

Subject to any contrary provisions for a specific Derivatives Series in the relevant Final Terms, the Zürcher Kantonalbank acts as calculation agent for all Derivatives issued under this Issuance Programme (in this capacity, identified as "Calculation Agent").

The Issuer is entitled at all times to replace the calculation agent, to appoint one or more additional calculation agents and/or to revoke their appointment.

# (ii) Paying Agent

To the extent not otherwise specified in the (indicative) Term Sheet or the Final Terms of a Derivatives Series, the Zürcher Kantonalbank acts as paying agent (in this capacity, identified as "Paying Agent").

The funds necessary for payments of principal, interest, costs and any delivery of Underlyings or deliverable assets will be made available by the Zürcher Kantonalbank to the Issuer on a timely basis on the relevant due date in the relevant currency. The receipt of such funds from Zürcher Kantonalbank discharges the Issuer from its liabilities for payments on the relevant due dates for principal, interest and costs or, if applicable, any delivery of securities.

The relevant Issuer is entitled at all times and without the consent of investors to replace the Paying Agent with one or more Swiss or foreign banks (the "New Paying Agent") as paying agent for the Derivatives (or to terminate their appointments, provided that (i) the New Paying Agent assumes all obligations of the former Paying Agent that the former Paying Agent owed in respect of the Derivatives and (ii) the New Paying Agent has received all necessary approvals of the authorities in its country of domicile.

Any such paying agent serves only as service provider to the Issuer and does not assume any obligations or responsibility towards the Holders of the Derivatives.

#### (iii) Exercise Agent

Subject to any contrary provisions for a specific Derivatives Series in the relevant Final Terms, the Zürcher Kantonalbank acts as exercise agent for all Derivatives issued under this Issuance Programme (in this capacity, described as the "Exercise Agent").

Especially in the case of certain Derivatives in the category Leverage Products, an Exercise Notice must be submitted to the Exercise Agent (with a copy to the Issuer and the Clearing System) for the exercise of the option.

The Issuer is entitled at all times to replace the Exercise Agent with one or more additional exercise agents and or to terminate their appointment.

#### oo) Amendments and extraordinary events/market disruptions

#### (i) Correction of obvious errors

The Issuer is entitled in the Final Terms to change or supplement (i) obvious errors in the text or a calculation or other obvious errors, as well as (ii) contradictory or incomplete provisions without the consent of the Holders of the Derivatives, provided that in the situations mentioned in (ii), only those changes or additions are permitted that, considering the interests of the Issuer, may be reasonably imposed on the Holders of the Derivatives, i.e., that do not significantly impair the financial situation of the Holders of the Derivatives or the methods of exercise. Amendments of the terms of the Derivatives are to be notified in accordance with Section III.G.a).

# (ii) In case of the occurrence of extraordinary events/market disruptions

If during the term of a Derivatives Series (i) in respect of an Underlying or a component of an Underlying (a) an extraordinary event or a market disruption described in Section IV occurs, (b) an extraordinary event described in the Final Terms for a Derivatives Series occurs or (c) the Issuer or the Calculation Agent determines, in its absolute discretion, that an Underlying or component of an Underlying - for whatever reason - is no longer comparable to the Underlying on the Issue Date or (ii) any other exceptional event or a market disruption occurs which makes it unreasonably difficult or impossible for the Issuer to fulfill the rights arising from the Derivatives or to determine the value of the Derivatives, the Issuer shall select the appropriate measures and, if necessary, amend the terms of the Derivatives in such a way that Issuance Programme 2019 the economic value of the Derivative, to the fullest extent as far as legally and actually possible, is equal to the value of the Derivative prior the occurrence of the event.

The specific rules on amendments for the individual types of Underlyings in Section IV or in the Final Terms take precedence over these provisions. Amendments of the terms of the Derivatives are to be notified in accordance with Section III.G.a).

If the Issuer is of the opinion that, following the occurrence of an extraordinary event, an appropriate amendment, for whatever reason, is not possible, the Issuer is entitled to cause the early termination of the Derivatives through a notice in accordance with Section III.G.a) as contemplated by Section III.E.a)ff).

### pp) Exercise methods

The exercise methods for Derivatives with exercise rights (option rights) in favor of the Holder of the Derivatives are specified in the Section 'Special terms' (see Section III.E.a)tt)).

### qq) Protection against dilution

In the case of Derivatives with equity securities as an Underlying, following the occurrence of a Corporate Action (see the definition in the glossary) which in the determination of the Issuer or the Calculation Agent has a dilutive or concentrating effect on the market value of the Underlying, the Issuer or the Calculation Agent will, in its own discretion, amend the terms of the Derivative so that the economic value of the Derivative after the occurrence of the event is equal to the fullest extent as far as legally and actually possible to the value of the Derivative prior the occurrence of the event.

### rr) Change of the Underlying

The events which can lead to a change of the Underlying or a component of an Underlying, as well as the effects of the occurrence of such an event on the terms of the Derivatives are governed by the Section "Information about the Underlyings" (see. Section IV).

In addition, the Issuer is entitled to amend the terms of the Derivatives in its absolute discretion upon the occurrence of an extraordinary event in accordance with Section III.E.a)oo).

#### ss) Capital protection

In the case of Derivatives in the category Capital Protection, the Issuer is required to pay a Minimum Redemption Amount on the Redemption Date (see also, in respect of capital protected products, Section III.C.b)aa)). In the Final Terms for this Derivatives Series, the Minimum Redemption Amount will, as a general rule, be specified as a percentage of the Nominal Value or par value of the Derivative.

The Minimum Redemption Amount is not owed if the Derivatives are repaid before their maturity date, e.g., in the case of an early redemption following the occurrence of a termination event (see Section III.E.a)ff). During the term, this Derivatives Series may have an intrinsic value which is significantly lower than the Minimum Redemption Amount.

#### tt) Change of obligor

The Issuer is entitled at all times and without the consent of the investors to assign in whole (but not in part) the rights and claims under individual Derivatives or all of them to a Swiss or foreign subsidiary, branch or holding company of the Zürcher Kantonalbank (the "New Issuer") to the extent that (i) the New Issuer assumes all of the obligations arising out of the assigned Derivatives which the previous Issuer owed in respect of these Derivatives, (ii) the Zürcher Kantonalbank enters into a keep-well agreement with the New Issuer with terms equivalent to the one between the Zürcher Kantonalbank and Zürcher Kantonalbank Finance (Guernsey) Limited, (iii) the New Issuer has received from the supervisory authorities of the country in which it is domiciled all necessary approvals for the issue of Derivatives and the assumption of the obligations under the assigned Derivatives. An assignment of Derivatives pursuant to this provision is to be notified to the investors pursuant to Section III.G.

Upon the fulfillment of the conditions mentioned above, the New Issuer assumes in every respect the role of the previous Issuer and the previous Issuer will be released from all of the obligations in relation to the Holders of the Derivatives which were related to the function of the Issuer or related to the structured products.

In the event of such a replacement of the obligor, every reference in this Issuance Programme and in the relevant issue and listing prospectuses to the Issuer is deemed a reference to the New Issuer.

The Issuer bears no responsibility for the harm to individual investors caused by, or the consequences for individual investors of, the exercise of the Issuer's right to substitute another obligor as Issuer. Accordingly, no investor is entitled in this situation to assert legal claims or indemnity claims against the Issuer.

### b) Special terms for individual categories of Derivatives (special terms)

#### aa) Special terms for Warrants

The following specific conditions apply for Derivatives in the category Warrants (see Section III.C.b)dd)(i) and 0) in addition to the general terms for all categories of Derivatives.

### (i) Types of Warrants

#### American Style and European Style Warrants

In the case of warrants which are identified in accordance with the Final Terms as "American Style", the Holder of the warrants may exercise his or her option on any Business Day during the option period until, at the latest, the maturity date.

In the case of warrants which are identified in accordance with the Final Terms as "European Style", the Holder of the warrants may only exercise his or her option right on the maturity date.

#### Warrants with Cash Settlement

Warrants with Cash Settlement grant the Holder the right to receive a Cash Settlement Amount if on the Exercise Date (a) in the case of call warrants, the difference between the closing price of the Underlying on the maturity date or the Exercise Date and the exercise price and (b) in the case of put warrants, the difference between the exercise price and the closing price of the Underlying on the maturity date or the Exercise Date is a positive amount.

To the extent that nothing to the contrary is specified in the Final Terms, warrants on indexes, exchange rates, precious metals, commodities and interest rates provide an entitlement to the payment of a Cash Settlement Amount.

#### Warrants with physical delivery

Warrants with physical delivery grant the Holder the right, but not the obligation, to buy (call warrant) or sell (put warrant) a specified number of an Underlying at a price specified in advance (exercise price) up to a date specified in advance (expiration date).

To the extent that the Final Terms do not provide to the contrary, Warrants on shares provide an entitlement to the physical delivery of the shares.

#### (ii) Methods of exercise

#### **Option period**

The option period is specified for each Derivatives Series in the Final Terms and specifies the period in which the option must be exercised.

In the case of warrants on equity securities, the Issuer is entitled, to the extent that on a Business Day more than 100,000 warrants are exercised by a Holder or a group of Holders trading together, to defer the Exercise Date for warrants which exceed this number to the next following Business Day.

#### Automatic exercise and notice of exercise

To the extent that nothing to the contrary is specified in the Final Terms for a Derivatives Series, all warrants with Cash Settlement are deemed automatically exercised on the expiration date, to the extent that (a) in the case of call warrants, the difference between the closing price of the Underlying on the expiration date and the exercise price and (b) in the case of put warrants the difference between the exercise price and the closing price of the Underlying is a positive amount. Otherwise, the warrants expire worthless.

To the extent that the Holder of a warrant with Cash Settlement which is identified in the Final Terms as "American Style" wants to exercise during the option period, but before the expiration date, the delivery of an Exercise Notice to the Exercise Agent (see Section III.G.b)) with a copy to the Issuer and the Clearing System is necessary. The written notice of exercise must be received by the Exercise Agent not later than 12:00 CET or a different time specified for a Derivatives Series in the relevant Final Terms and cannot be withdrawn in order for the warrant to be deemed exercised on the relevant date. Any Exercise Notices received later are deemed delivered on the next following Business Day.

To the extent that nothing to the contrary is specified in the Final Terms for a Derivatives Series, the delivery of an Exercise Notice to the Exercise Agent (see Section III.G.b)) with a copy to the Issuer and the Clearing System is necessary for the exercise of warrants with physical delivery. The written notice of exercise must be received by the Exercise Agent not later than 12:00 CET or a different time specified for a series of Derivative in the relevant Final Terms and cannot be withdrawn, in order that the warrant is considered exercised on the relevant date. Any Exercise Notices received later are deemed exercised on the next following Business Day.

Accordingly, warrants with physical delivery, or other warrants for which an automatic exercise has not been specified in accordance with the Final Terms, expire worthless if the Exercise Notice is not received by the Exercise Agent not later than 12:00 CET on the expiration date (or a different time specified in the relevant Final Terms).

#### (iii) Effect of exercise

#### **Cash Settlement**

In the case of warrants with Cash Settlement (see Section III.E.b)aa)(i)), the Issuer or the Calculation Agent calculates the amount of the Cash Settlement Amount on the Exercise Date and publishes it in accordance with Section III.G.

The Cash Settlement Amount will be paid, in the case of warrants on indexes, Exchange Rates, precious metals and commodities, on the fourth Business Day after the Exercise Date.

#### **Physical delivery**

In the case of warrants with physical delivery (see Section III.E.b)aa)(i)), the delivery of the number of Underlyings specified in the relevant Final Terms is made on the third Business Day after the Exercise Date against payment of the exercise price.

#### (iv) Application for registration in the case of the physical delivery of registered shares

In the case of registered shares which are delivered following the exercise of call warrants, it is the responsibility of the acquirer to submit an application for registration in the share register of the relevant company. The validity of the exercise of the warrant is not affected by a refusal to confirm the status of a shareholder with voting rights.

#### (v) Early termination if amendments are not possible

If the Issuer or the Calculation Agent is of the opinion that following the occurrence of a Market Disruption (see Section IV.A.b) or an extraordinary event (see Section III.E.a)oo)(ii)), which in the opinion of the Issuer or the Calculation Agent would make an amendment of the terms of the warrant necessary, but a proper amendment of the terms of the warrant, for whatever reason, is not possible, it is entitled, but not required, to terminate the warrants early.

The termination becomes effective on the date ("Termination Date") of the publication of the notice in accordance with Section III.G. In this case the term of the warrants ends early. In the event of a termination, the Issuer will pay to the relevant Holder of an affected warrant within five Bank Working Days after the Termination Date an amount per warrant which, in its reasonable judgment, is determined to be the appropriate market price.

#### bb) Special terms for mini-futures

For Derivatives in the category mini-futures (see Section III.C.b)dd)iv)), the following specific terms apply in addition to the general terms applicable to all categories of Derivatives.

#### (i) Term

Mini-futures have no fixed term (open ended). The maturity date may occur at any time (even on or immediately after the Issue Date) and is set by (i) a termination by the Issuer, (ii) the occurrence of a stop-loss event or (iii) an Exercise Notice from the Holder of the mini-futures.

#### Termination by the Issuer

The Issuer is entitled at all times, without a specification of reasons, to terminate the mini-futures. The termination becomes effective at the time of the publication of the notice in accordance with Section III.G.

#### **Stop-loss event**

A stop-loss event occurs if the market price for an Underlying during the trading hours for the Underlying reaches the stop-loss level specified in the relevant Final Terms or exceeds it (in the case of short mini-futures) or falls below it (in the case of long mini-futures).

#### **Exercise Notice of the Holder**

To the extent that the Holder of a mini-future wants to exercise during the term, he or she must do this through an Exercise Notice to the Exercise Agent (see Section III.G.b)) with a copy to the Clearing System. The Exercise Notice must be received by the Exercise Agent not later than 11.00 CET or a different time specified in the relevant Final Terms for a Derivatives Series and cannot be withdrawn, in order for the mini-futures to be considered exercised on the relevant date. An Exercise Notice received later is deemed exercised on the next following Business Day. After the delivery of an effective Exercise Notice, an assignment of mini-futures is not permitted.

If a stop-loss event occurs on the date on which the Exercise Notice becomes effective, the Exercise Notice takes precedence.

#### (ii) Effect of termination, Exercise Notice and automatic exercise

If mini-futures become due for redemption as a result of a termination, the occurrence of a stop-loss event or an Exercise Notice from the Holder of the mini-futures, a cash settlement will be paid in accordance with the specific provisions of the relevant Final Terms. In this regard, it is to be noted that the relevant time for the calculation of the Cash Settlement Amount is different depending on why it has become due. In the case of a termination or Exercise Notice, generally the closing price of the Underlying applies; in the case of a stop-loss event, the price of the Underlying during trading hours applies.

To the extent that nothing different is specified in the relevant Final Terms, the Cash Settlement Amount will be paid on the fifth Bank Working Day after termination, occurrence of the stop-loss event or the effectiveness of the Exercise Notice from the Holder of the mini futures.

#### F. Structure of the Derivatives

Derivatives are issued under this Issuance Programme as book entry securities as defined in Art. 973c Code of Obligations.

The book-entry securities are created by registration in the securities book which the Zürcher Kantonalbank maintains for the Derivatives issued by it as well as for those of Zürcher Kantonalbank Finance (Guernsey) Limited. The book-entry securities are thereupon registered in the main registry of the SIX SIS AG or another custodian recognized by the SIX Swiss Exchange (always referred to as "Custodian") and credited to the account of one or more participants of the Custodian as book-entry securities as defined in the Federal Law on Book-Entry Securities of 3 October 2008 ("BEG").

As long as the Derivatives are registered as book-entry securities with the Custodian, their transfer is governed by the provisions of the BEG. According to Art. 24 BEG, book-entry securities are transferred by an instruction to transfer the securities from the account Holder to the Custodian and by credit of the book-entry securities to the securities account of the acquirer. The transfer is completed with the credit. At the same time, the transferring investor loses his or her rights in the transferred book-entry securities.

The records of the Custodian determine the number of Derivatives held by a participant of the Custodian. The Issuer, as well as the Paying Agent and the Exercise Agent, are entitled to treat each account Holder in the main register of the Custodian in whose securities account Derivatives are registered as book-entry securities and the rightful owner of the Derivatives and to make payments or deliveries to the owner of the securities account in full discharge of its obligations as defined in Art. 5 lit. c BEG.

#### G. Notices

#### a) Notices and other disclosures

All notices concerning the Derivatives for the relevant Derivatives Series will be given with legal effect by the Issuer under the internet address: http://www.zkb.ch/strukturierteprodukte. Official notices concerning Derivatives Series that are quoted on the SIX Swiss Exchange will, in addition, be published in accordance with the regulations issued by the SIX Swiss Exchange applicable to the IBL (Internet Based Listing) and IBT (Internet Based Terms). Other publication channels can be defined in the Final Terms and take precedence over these provisions

#### b) Notices by investors to the Issuer, the Paying Agent, Exercise Agent and the Calculation Agent

Notices from investors to the Issuer, as well as to the Paying Agent, Exercise Agent and the Calculation Agent are to be given in writing and sent to:

### ZÜRCHER KANTONALBANK (AS PAYING AGENT, EXERCISE AGENT AND THE CALCULATION AGENT)

Zürcher Kantonalbank LOAA Postfach 8010 Zürich Telephone +41 44 292 76 03, Fax +41 44 292 86 64

### ZÜRCHER KANTONALBANK FINANCE (GUERNSEY) LIMITED (AS ISSUER)

Zürcher Kantonalbank Finance (Guernsey) Limited Regency Court, Glategny Esplanade St. Peter Port, Guernsey GY1 3AP, C.I. Telephone +44 1481 705288

### always with a copy to Zürcher Kantonalbank

### H. Limitation on transferability and selling restrictions

To the extent that the Final Terms for a Derivatives Series do not provide otherwise, the Derivatives are only transferable in units of a single Derivative or an integral multiple thereof.

For sales restrictions, see Section III.C.c).

#### I. Symbol, securities number and ISIN

All Derivatives issued under this Issuance Programme will be unambiguously identified by a Swiss securities number and an "International Securities Identification Number" ("ISIN"). The Swiss securities number will be assigned by the business SIX Telekurs. For Derivatives Series which are listed on the SIX Swiss Exchange and traded through SIX Structured Products Exchange AG, SIX Telekurs also assigns a symbol. The symbol, the Swiss securities number and ISIN will be specified in the Final Terms.

#### J. Trading period

Derivatives which are listed on the SIX Swiss Exchange and traded through Scoach Switzerland may be traded during the trading times of SIX Structured Products Exchange AG up to the last Trading Day which is specified in the relevant Final Terms. The last Trading Day may be before the maturity date.

#### K. Price quotations

In the case of Derivatives with interest components, it will be specified in the relevant Final Terms whether the price of the Derivatives is stated with accrued interest ("Dirty Price") or if accrued interest is stated separately ("Clean Price").

#### L. Severability clause, amendments of the terms

If any provision of the Derivatives Terms is or becomes wholly or partially invalid, incomplete or impossible of performance, or in event of omitted terms, then the application of the remaining provisions of the Derivatives Terms will not be affected thereby.

A provision that is consistent with the meaning and purpose of the Derivatives Terms should replace the provision that is invalid, incomplete or impossible of performance or should address any omission.

The relevant Issuer is entitled to improve, correct or supplement any provision of the Derivatives Terms for purposes of clarity and accuracy in the event of ambiguity or uncertainty. The Issuer may also in such a situation correct, supplement or amend the Derivatives Terms in such respect and in such a manner as it considers necessary or desirable, so long as investors do not suffer significant financial losses as a result.

#### M. Representative

Zürcher Kantonalbank, as a recognized representative under Art. 43 Listing Rules, represents Zürcher Kantonalbank Finance (Guernsey) Limited before the SIX Swiss Exchange.

### IV. INFORMATION ABOUT THE UNDERLYINGS

### A. General Information

### a) Nature of the Underlyings

Various Underlyings may be the basis for the Derivatives issued under this Issuance Programme (in relation to which the value of the Derivatives changes, as described in Section III.C.b) or fluctuates), although the specific Underlying or Underlyings for a specific Derivatives Series are to be found in the Final Terms which alone are controlling.

Potential Underlyings are generally the permitted derivatives under Art. 13 of the Additional Rules for the Listing of Derivatives (Additional Rules for Derivatives, ARD) of 4 November 2016. Among these are included, but not limited to, participating securities (Beteiligungsrechte) such as shares (Aktien), participating certificates (Partizipationsscheine) and (profit participating securities (Genusscheine) that are listed on the SIX Swiss Exchange or a foreign securities exchange subject to equivalent regulation. In addition, all derivatives listed or traded on the SIX Swiss Exchange, as well as stand-ardized options and futures contracts which are quoted on a regulated futures exchange, such as Eurex or the Chicago Mercantile Exchange (CME) are also Underlyings. Various indexes, regardless of whether they are published and maintained by the Issuer or by third parties, and reference rates, such as, freely convertible currencies, customary market interest and swap rates, such as 3-month LIBOR or EURIBOR, precious metals, specifically gold, silver, platinum and palladium and also commodities which are traded and/or published on an exchange recognized by the Regulatory Board of SIX Swiss Exchange and their reported spot-market prices or for which the Issuer ensures that the rules and the composition were made transparent for the investor, are permitted as Underlyings. Further, baskets of the foregoing Underlyings may constitute the Derivatives described here. Baskets may be "static", i.e., generally without change during the term of the Derivatives, or also "dynamic".

### b) Information about price changes of Underlyings

Information about historical or current price changes of Underlyings as well as their volatility may be obtained from the issuer of the Underlying or a component of an Underlying, an index sponsor or the Relevant Exchange for the Underlying or a component of an Underlying. Investors should note that historical price changes provide no assurance that the Underlying or the component of the Underlying will change in the same or similar way in the future.

### c) Market disruptions

#### aa) Events

The following events, as well as all others identified as such in the Final Terms for a Derivatives Series, constitute a "Market Disruption", if such an event is significant in the determination of the Issuer or the Calculation Agent; provided that the Issuer or the Calculation Agent shall make its determination on the basis of the circumstances it considers, in its reasonable judgment, relevant, including, among other things, taking into account the hedging measures of the Issuer in respect of the Derivatives. There may be a Market Disruption if:

### (i) Derivatives based on shares or a basket of shares

(a) trading in the Underlying or a component of the Underlying is suspended or significantly limited on the principal exchange on which it is traded, (b) the trading of options or futures on the Underlying or a component of the Underlying is suspended, or significantly limited on the principal exchange on which they are traded or (c) there are no current reports of Exchange Rates which are required for a calculation in connection with the Derivatives.

#### (ii) Derivatives based on an index or a basket of indexes

(a) the calculation of the level of the index is suspended by the index sponsor, (b) the trading of options or futures on the Underlying or a component of the Underlying is suspended or significantly limited on the principal exchange on which they are traded or (c) there are no current reports of Exchange Rates which are required for a calculation in connection with the Derivatives.

### (iii) Derivatives based on a futures contract or a basket of futures

(a) trading in the Underlying or a component of the Underlying is suspended or significantly limited on the principal exchange on which it is traded, (b) the trading of options or futures on the Underlying or a component of the Underlying is suspended, or significantly limited on the principal exchange on which they are traded or (c) there are no current reports of Exchange Rates which are required for a calculation in connection with the Derivatives.

### (iv) Derivatives based on a collective capital investment or a basket of collective capital investments

(a) trading in the Underlying or a component of the Underlying is suspended or significantly limited on the principal exchange on which it is traded, (b) the net asset value is not calculated or reported within the usual time periods (c) the trading of options or futures on the Underlying or a component of the Underlying is suspended, or significantly limited on the principal exchange on which they are traded or (d) there are no current reports of Exchange Rates which are required for a calculation in connection with the Derivatives.

### (v) Derivatives based on Exchange Rates

(a) trading in at least one of the currencies of an Underlying is suspended or significantly limited, (b) the convertibility of the relevant currency is limited (c) the final fixing price fixed in the Final Terms for any reason is not available (such as the absence of a reference price) or (d) it is impossible to obtain an Exchange Rate.

### (vi) Derivatives based on an reference interest rate

the reference interest rate on which the derivative is based (a) becomes a value lower than zero ("0") or (b) is temporarily unavailable or is not published.

### (vii) Derivatives based on other Underlyings

If the Underlying is a bond, a precious metal, a commodity or a Structured Product, or if the Underlying is composed of the foregoing: (a) trading in the Underlying or a component of the Underlying is suspended or significantly limited on the principal exchange on which it is traded, (b) the trading of options or futures on the Underlying or a component of the Underlying is suspended, or significantly limited on the principal exchange on which they are traded, (c) the lack or market prices which are required for a calculation in connection with the Underlying or components of the Underlying or (d) the lack of current reports of Exchange Rates which are required for a calculation in connection with Derivatives.

### bb) Effects of a Market Disruption

### (i) Effects on the value of a Derivative during the term

If a Market Disruption occurs and continues before the maturity date of a Derivative in respect of an Underlying or a component of an Underlying and therefore a market price cannot be determined, the Issuer or the Calculation Agent shall determine the market price of the relevant Underlying or components of the Underlying before the Market Disruption in its unfettered discretion. In determining the market price, the Issuer or the Calculation Agent may, if options and futures contracts on the Underlying or the components of the Underlying are traded on an exchange, take into account the rules of the Relevant Exchange for the termination of the market price. If the Underlying is an index, the Calculation Agent may, in addition, in determining the level of the index, use the concept of the index sponsor or refer to determinations of the indexes by persons who have calculated the level of the index in accordance with the concept of the index sponsor. The Issuer or the Calculation Agent is not required to do so. The determination of the market price is binding on the Holders of the Derivatives to the extent that an obvious error has not been made. This provision applies equally to the determination of the value of the Derivative whose Underlying or Underlying components has been affected by a Market Disruption.

#### (ii) Effects on the maturity date of the Derivatives

If a Market Disruption occurs and continues before the maturity date of a Derivative in respect of an Underlying or a component of an Underlying and therefore a market price cannot be determined, the maturity date will be postponed to the first Trading Day on which the Market Disruption no longer prevails. If a Market Disruption continues for a period of eight Business Days after the maturity date, the eighth Business Day after the maturity date shall be deemed the new maturity date (New Maturity Date". In this case, the Issuer or the Calculation Agent shall determine the closing market price of the Underlying which is affected by the Market Disruption or the components of the Underlying affected by the Market Disruption on the New Maturity Date in its unfettered judgment, subject to general market conditions and the last price of the Underlying or component of the Underlying which is affected by the Market Disruption on the Holders of the Derivatives to the extent that an obvious error has not been made. The closing price of an Underlying or components of an Underlying which have not been affected by the Market Disruption will be determined as of the original maturity date.

If the maturity date is postponed, the new Redemption date is the eighth day after the date of the New Maturity Date (the "New Redemption Date"). If this day is not a Business Day, then the immediately next succeeding Business Day is the New Redemption Date.

The Issuer and the Calculation Agent are not liable to the Holder of a Derivative for any losses which result from a Market Disruption.

### (iii) Effects on the exercise of warrants

If the Issuer or the Calculation Agent determine on the Exercise Date that a Market Disruption has occurred and is continuing, the Exercise Date the will be postponed to the next Trading Day on which, in the opinion of the Issuer or the Calculation Agent, a Market Disruption is no longer occurring. The Issuer or the Calculation Agent shall determine in their unfettered discretion whether a Market Disruption is occurring and the Exercise Date is to be postponed.

### cc) Notices

The Issuer or the Calculation Agent shall notify investors in accordance with Section III.G as soon as practicable whether a Market Disruption has occurred on a day on which the Issuer or the Calculation Agent, in the absence of a Market Disruption, would have had to determine the price or value of an Underlying and what consequences the Market Disruption had on the affected Derivative.

#### B. Additional Provisions for Derivatives based on Participation Rights (Beteiligungsrechte)

### a) Market price of the Underlying

The "market price" is the price of the Participation Rights determined and published by the Relevant Exchange. The Relevant Exchange is the securities exchange for the Primary Listing of the Participation Rights, subject to any contrary provision in the Final Terms for a Derivatives Series. If during the term of a Derivative, the Relevant Exchange does not determine and publish the market price for the Participation Rights on a particular day, the Issuer or the Calculation Agent, in its unfettered discretion, shall determine whether another securities exchange on which the Participation Rights are listed and which such securities exchange should be the Relevant Exchange on this date.

The "closing price" is the official closing price of the Participation Rights on a specific date determined and published on the Relevant Exchange.

For the determination of whether any barrier has been reached or breached (upwards or downwards) by the Participation Rights, each market price of the Participation Rights determined on the Relevant Exchange during the Observation Period shall be authoritative.

For the determination of whether any trigger level has been reached or breached (upwards or downwards) by the Participation Rights, the price during the trigger period shall be authoritative.

#### b) Rights related to the Underlyings

The Underlyings actually acquired upon redemption have the rights to all dividends or other rights and claims linked to the Underlying payable after the Redemption Date or at the time of the exercise. If the Redemption Date or the Exercise Date and payment date for the dividend or the date for the loss of the claim occur on the same date, the Underlying will be delivered without the dividend or the claim.

#### c) Change of the Underlying

The following events, among others, constitute extraordinary events and may, in the discretion of the Issuer or the Calculation Agent, lead to a change in the share which is the Underlying: (a) Corporate Actions (as defined in the glossary), (b) the exchange of shares for other shares or cash settlements following a merger or acquisition, (c) the delisting or (d) the final termination of trading in the share on the Relevant Exchange.

#### aa) Corporate Actions

Corporate Actions which have a dilution or concentration effect on an Underlying or a component of an Underlying entitle the Issuer to amend the Derivatives Terms in accordance with Section III.E.a)qq).

#### bb) Exchange offers

If the exchange of shares is offered to shareholders of an underlying or a component of an underlying in connection with a corporate takeover or merger, this will lead to an adjustment of the terms and conditions of the Derivatives, provided that the transaction takes place. The Issuer and/or Calculation Agent shall determine the key date deemed relevant for the adjustment. The key date may be the date of entry in the respective commercial register or an equivalent foreign register ("merger execution"), the first trading day of the new Underlyings or another date deemed relevant. The Issuer and/or Calculation Agent may (but is not obliged to do so), when adjusting the terms and conditions, take into account the corresponding adjustments made by the respective futures exchange for options contracts traded there to the Underlying and act accordingly.

An amendment of the terms as a result of the exchange of the affected Underlying or component of the Underlying categorically only occurs if the exchange to be made by the acquiring company specified in the exchange offer can be delivered through a central custodian or delivery agent recognized by SIX SIS AG, Derivatives linked to this Underlying can be traded, as well as if the trading of the offered shares or other rights on a securities exchange acceptable to the Issuer is possible ("Prerequisites for an Exchange").

To the extent that the exchange is exclusively in shares or shares plus a cash payment, the value of which is not greater than 67 percent of the entire exchange, the Underlyings or the components of the Underlying which are replaced by the securities offered by the exchange offer will be substituted, subject to the relevant exchange ratio. The Issuer shall, if necessary, amend the other terms of the Derivatives, in its unfettered discretion, so that the economic value of the Derivative before the exchange of the shares.

To the extent that an exchange is made in cash in excess of 67 percent of the total exchange, or if the Prerequisites for an Exchange have not been fulfilled, then the Issuer must either substitute the affected Underlying or the affected components of the Underlying with another, as described above, or terminate the Derivative with effect on the Closing of the Merger. If the Issuer chooses to terminate the Derivative, then it must pay the holder of the Derivatives a cash amount in the currency of the Derivative which will be determined in the unfettered discretion of the Issuer or the Calculation Agent as the economic value of the Derivative at the time of early termination, taking into account, if applicable, the then relevant market price of the Underlying and the costs incurred by the Issuer as a result of the early termination. The cash amount is to be paid for credit five Business Days after the early termination.

### cc) Delisting or termination of trading

If an Underlying or a component of an Underlying is delisted on the Relevant Exchange or trading is finally terminated and at this point in time a listing or trading exists on another securities exchange, the Issuer is entitled to designate this exchange as the relevant exchange pursuant to a notice in accordance with Section III.G.a). In the event of such a substitution, each of the references to the reference exchange in the Derivatives Terms is deemed a reference to the substitute exchange. If the Issuer decides, in its unfettered discretion, against a substitution or if a substitute exchange does not exist, then the Issuer shall amend the terms of the Derivatives, in its unfettered discretion.

### C. Additional Provisions for Derivatives Based on Bonds

### a) Market value of the Underlying

The "market price" is price of the bond determined by the Relevant Exchange. The Relevant Exchange is the securities exchange for the Primary Listing of the bond, subject to any contrary provision in the Final Terms for a Derivatives Series. If during the term of a Derivative, the Relevant Exchange does not determine and publish the market price for the bond on a particular day, the Issuer or the Calculation Agent, in its unfettered discretion, shall determine whether there is another securities exchange on which the Underlying is listed and which such securities exchange should be the Relevant Exchange on this date.

The "closing price" is the official closing price of the bond on a specific date determined and published on the Relevant Exchange.

For the determination of whether any barrier has been reached or breached (upwards or downwards), each market price of the bond determined on the Relevant Exchange during the Observation Period shall be authoritative.

For the determination of whether any trigger level has been reached or breached (upwards or downwards) by the bond, the closing price or, depending on the structure of the product, the Intraday price on each day during the trigger period shall be authoritative.

### b) Change of the Underlying

The following events constitute extraordinary events in respect of a bond which is an Underlying or a component of an Underlying issued under this Issuance Programme: (a) the bond is partially or fully repaid early (b) the rating of the issuer of the bond is reduced, (c) the issuer of the bond is liquidated, becomes subject to bankruptcy proceedings or threatens to enter into bankruptcy proceedings or announces that it is unable to pay its debts when due, (d) another event in respect of the issuer of the bond is threatened which may result in a payment default, (e) the issuer is restructured, (f) any suspension, termination or other restriction on trading in the bond, (g) any change in the tax treatment in respect of Coupon payments on the bond, (h) the trading currency of the bond is discontinued, (i) any other event which has or could have material adverse effects on the ability of the Issuer to fulfill its obligations in respect of the Derivative or to hedge its market risks in respect of the Derivative.

The issuer may at its own discretion specify one or more bonds as a substitute for the bond concerned ("replacement bonds") and may make changes. If the Issuer designates a Substitute Bond, the Issuer or the Calculation Agent must make all necessary amendments to the terms of the Derivatives which result of the substitution of the bond. The occurrence of extraordinary events the amendments and the day on which the amendments are effected ("Amendment Date") are to be notified in accordance with Section III.G.a). Every reference in the Derivatives Terms to the bond affected by the substitution is deemed, after the Amendment Date, a reference to the Substitute Bond.

### D. Additional Provisions for Derivatives Based on Collective Capital Investments

### a) Market price for collective capital investments

The "NAV" of a collective capital investment is the net asset value of the collective capital investment per unit, as it is published on a specific day by the administrator of the collective capital investment.

"Initial Net Asset Value" is the amount which a hypothetical investor (in the same position as the Issuer) would have to pay per unit of collective capital investment if he or she would subscribe for such a unit on the pricing date.

"Final Net Asset Value" is the amount that a hypothetical investor (in the same position as the Issuer) would receive per unit of collective capital investment, if he or she would redeem such a unit on the maturity date.

### b) Change of the Underlying

The following events are exceptional events in respect of a collective capital investment which [serve] as an Underlying or component of an Underlying of a Derivative under this Issuance Programme: (a) the dissolution, termination, liquidation, suspension, merger, division of the collective capital investment or the revocation of any license or registration of the collective capital investment (b) a change in the currency in which the net asset value of the collective capital investment is reported, (c) a material change in the investment objectives, the investment guidelines, the investment process, the management or organization of the collective capital investment is reported, provided that non-material changes are considered those that are formal or technical in nature, as well as those of marginal significance, (d) a material change in the type of the assets in which the collective capital investment invests, directly or indirectly, (e) the collective capital investment introduces a sales fee or a redemption fee or increases one of these, (f) the net asset value of the collective capital investment is not calculated or reported or other information in respect of the collective capital investment which, according to the documentation for the collective capital investment is to be reported, is not reported, (g) the net investment value audited by an accounting firm deviates from the reported net asset value or the accounting firm issues a gualified audit report or declines to provide an ungualified audit report, (h) each suspension, termination or restriction of trading in units of a collective capital investment, (i) each suspension, termination or restriction of repayments or subscriptions of units of the collective capital investment, (i) the collective capital investment requires that a holder of units in the collective capital investment redeems them in whole or in part, (k) each change in the tax or supervisory treatment in respect of the collective capital investment, the management company, the investment manager, the investment adviser or the Issuer, (I) the resignation or termination of the management company, the investment adviser or its staff, provided that non-material changes are considered those of a technical nature, as well a those with limited significance, (m) winding up, dissolution, liguidation or the loss of a license or registration of the management company, the investment manager or the investment adviser, (n) the collective capital investment, the management company, the investment manager or the investment adviser become parties to a dispute whether before a court or not, (o) any of the collective capital investment, the management company, the investment manager or the investment adviser or its employees is subject to a regulatory or criminal investigation, a criminal charge or a regulatory disciplinary measure, (p) any change or termination or any agreement between the Issuer and the collective capital investment, the management company or the investment adviser, including such agreements which have an adverse effect on the subscription or redemption of units of the collective capital investment and (g) any other event which has or could have material adverse effects on the ability of the Issuer to fulfill its obligations in respect of the Derivative or to hedge its market risks in respect of the Derivative

#### E. Additional Provisions for Derivatives Based on Indexes

#### a) Types of indexes

Indexes represent the performance of selected financial instruments. The particular index regulations, which may be obtained from the particular index sponsor, indicate which financial instruments are part of a particular index and according to which criteria these instruments were selected. In this regard, the criteria for composition of an index may either be subject to fixed rules or the index sponsor may determine the composition of the index in its discretion. For indexes with the Zürcher Kantonalbank as index sponsor, the general index regulations may be obtained from https://zkb-finance.mdgms.com/products/stp/classes/zkbmeinindex/index.html. Specific information on the individual indexes with the Zürcher Kantonalbank as index sponsor may be obtained from https://zkb-finance.mdgms.com/products/stp/service/documents/index.html.

### b) Level of the index

"Index Level" is the level of the index as it has been calculated and reported by the index sponsor, converted into the currency of the Derivative. In this regard, an index point equals the amount of a unit of the relevant currency.

"Closing Level" is official closing level of the index as it has been calculated and reported by the index sponsor, converted into the currency of the Derivative. In this regard, an index point equals the amount of a unit of the relevant currency.

For the determination of whether any barrier has been reached or breached (upwards or downwards) by the index, every reported level of the index during the term is dispositive.

For the determination of whether a trigger level has been reached or breached (upwards or downwards) by the index, the closing level of the index on each day during the trigger period is dispositive.

### c) Change in the Underlying

If the Issuer determines in its unfettered discretion that the concept or calculation of the index is no longer comparable to the concept or calculation at the time of the issue of a Derivatives Series, the Issuer may amend the terms of the Derivatives in its unfettered discretion so that the value of the Derivative after the change in the index is, to the fullest extent as far as legally and actually possible equal to the value of the Derivative before the change. The Issuer to such adjustment is also eligible if they or another company of the Zürcher Kantonalbank Group decides in its function as Index Sponsor to change the concept or the calculation of the index.

In determining to what extent such a change is to be taken into account, the Issuer may, if options and future contracts on the index are traded on a an exchange, take into account amendments to the contract terms of the relevant options and futures made or announced by the Relevant Exchange. The Issuer is, however, not required to do so.

#### F. Additional Provisions for Derivatives based on Exchange Rates

#### a) Exchange rate

The "Exchange Rate" (also identified as "Spot Price Currency 1/Currency 2") is the relevant Exchange Rate derived from the global foreign exchange market which, for this purpose is considered continuously open each week during the time period from Monday, 05:00 Sydney time until Friday, 17:00 New York time.

For the determination of whether any barrier has been reached or breached (upwards or downwards) by an Exchange Rate, every reported level of the Exchange Rate during the term is dispositive.

#### G. Additional information for Derivatives on reference interest rates

#### a) Changes in the reference interest rate

The following events represent extraordinary events relating to a reference interest rate which is the Underlying or component of an Underlying of a Derivative issued under this Issuance Programme: (a) the reference interest rate assumes a value below zero ("0"), (b) the reference interest rate is no longer available or will no longer be published, or (c) it will be permanently discontinued.

If the Issuer or Calculation Agent determines that a recognised reference interest rate is no longer available, is no longer published or is discontinued, it shall determine at its own discretion another substitute reference interest rate which shall be as economically equivalent as possible. Successor reference interest rates recognised in the industry are deemed to be equivalent. If such an economically equivalent reference interest rate is not available from third parties, and if no recognised premium or discount at a base interest rate newly determined by the Issuer or Calculation Agent is published for the value-neutral conversion from the reference interest rate to a successor rate, the Issuer or Calculation Agent itself calculates and publishes a corresponding premium or discount and takes it into account when determining the new reference interest rate (base interest rate plus premium or discount).

### V. MODEL FINAL TERMS (FINAL TERMS)

For each Derivatives Series issued under this Issuance Programme, the specific economic and legal terms will be specified in the Final Terms, which supplement the Issuance Programme and together with the Issuance Programme constitute the complete issue and listing prospectus for the individual Derivatives Series.

In Annex 4, a model is presented for the Final Terms for warrants (Annex 4a), for mini-futures (Annex 4b) and for other Derivatives (Annex 4c).

The specific Final Terms may include more definitions, terms or parameters than specified in the model.

### VI. DEFINITIONS (GLOSSARY)

The following definitions of individual terms (in alphabetical order) are generally applicable to all categories of Derivatives. Different definitions may be applicable in the general derivatives terms, in the special terms or in the Final Terms for a single Derivatives series. In case of any conflicts, the definitions, defined terms and meanings in the specific terms take precedence over those in the General Terms and those in the Final Terms take precedence over all. If for a specific Derivatives Series terms are used which are not defined in the Derivatives Terms, the definition for the Derivatives Series in question takes the meaning that results from taking into account (i) the specifications of the relevant product type and (ii) from any applicable market practice.

"American Style" or "American" is a warrant which gives the bearer the right, but not the obligation, to buy from the Issuer ("Call Option") or sell to the Issuer ("Put Option") a specified quantity of a specific Underlying during the term of the warrant up to a specified time at an agreed price ("Exercise Price"). If Cash Settlement has been agreed, the closing price of the Underlying on the Exercise Date is relevant for the determination of the Cash Settlement Amount.

"Associated Entity" means a legal entity under direct or indirect control of the Zürcher Kantonalbank or which directly or indirectly controls the Zürcher Kantonalbank or which is under common control together with the Zürcher Kantonalbank. The determining factor for the interpretation of the terms "Control" and "to control" is a majority of the voting rights in the legal entity or the Zürcher Kantonalbank.

"Business Day" or "Bank Working Day" means a day (except for Saturday and Sunday), on which business banks and currency markets in Zurich settle payments and are open for business (including the trading of currencies and foreign currency deposits) and on which all clearing systems are open for business and, if applicable, for purposes of payment transactions in Euro, a day, on which the Trans-European Automated Real-Time Gross Settlement Express Transfer (TARGET2) System is operating.

"Calculation Agent" is, subject to a contrary provision in the relevant Final Terms, Zürcher Kantonalbank.

"**Cap Level**" is the built-in upper limit of a Structured Product up to which the holders participate in profits of the Underlying. The Cap Level is usually based on the market value of the Underlying.

"**Cash Settlement Amount**" is the amount defined as such in the Final Terms, expressed as fixed amount, as percentage of the Nominal Value or par value or as an amount to be determined by the Issuer or the Calculation Agent on the basis of a formula. The Cash Settlement Amount will be converted into the Settlement Currency at the Exchange Rate on the Business Day immediately after the Final Fixing Date or, if this day is not a Business Day, the immediately following date that is a Business Day. The Cash Settlement Amount will be rounded to two decimal places, provided that 0.005 is rounded down.

**"CISA"** is the abbreviation for the Federal Law on Collective Capital Investments of 23 June 2006 (Kollektivanlagegesetz, CISA) (as per 1 July 2013), SR 951.31.

"Clearing System" is SIX SIS AG, and any other clearing system approved by the Issuer and disclosed (each a "Clearing System" and together the "Clearing Systems").

"**Composite**" identifies a Derivative for which the currency of the Derivative and the currency of the Underlying or a component of the Underlying are not the same and the investor is not hedged against the risk resulting from this fact. Any conversions of market prices for an Underlying into the currency of the Derivative are made at current Exchange Rates. To the extent that the description of the Derivative does not expressly use the term "**Quanto**" or "**Quanto**-**Derivative**", all Derivatives issued under this Issuance Programme for which the currency of the Derivative and the currency of the Underlying or a component of the Underlying are not the same, are not hedged against exchange rate risk, even if the relevant Derivatives Series is not identified as "Composite".

"**Corporate Actions**" are events which have a dilution or concentration effect on the value of a share, such as, e.g., (a) distributions of unusually high dividends, bonuses or other cash distributions, as well as dividends, which are not paid in accordance with the regular dividend policy or which are not declared as regular dividends by the Issuer of the shares (e.g., special dividends or anniversary bonuses), (b) the granting of subscription rights, (c) capital increases from company funds, (d) capital reductions through the reduction of the par value of the shares for purposes of returning share capital to the shareholders, (e) a split or reverse split of the share, (f) the spin-off of a part of the company in a manner that creates an independent entity or if that part of the business is acquired by a third-party business or (g) another event with similar effect on the value of a share.

"**Coupon**" is interest, payable on the Nominal Value of the Derivative. The Coupon provides a maximum return per Derivative for the time period from the Issue Date until the Redemption Date. The Coupon may have interest and capital gains components.

"**Coupon Date**" is the calendar date or dates specified in the Final Terms for a Derivatives Series or, if one of these days is not a Business Day, the next following Business Day.

"**Creditor**" or "**Holder**" of a Derivative means the person who is the creditor of the right to claim payment from the Issuer under the Derivative under Swiss law.

"**Creditor Expenses**" means all taxes, charges and or/costs, including if applicable custody charges, transaction or exercise costs, stamp duties, turnover tax, issue-, admission-, transfer taxes or charges and/or other taxes or charges or charges in connection with (i) the exercise of the relevant Derivative and/or (ii) a payment or the delivery of Underlyings which will become due upon the exercise of the Derivative or otherwise.

"**Day Count Fraction**" means the day count fraction 30/360. This means that a year with 360 days and 12 months of 30 days each will be applied. The 31<sup>st</sup> day of a month is treated as the 30<sup>th</sup>. February also counts with 30 days, unless the last day of the Determination Period is the last day of February.

"**Derivatives**" means the book-entry securities linked to Underlyings issued under this Issuance Programme by an Issuer, the relevant issued Derivatives of a series, the "**Derivatives Series**" and the individual book-entry security, a "**Derivative**". The term "Structured Product" is used in this Issuance Programme or in the Final Terms for a Derivatives Series as a synonym for a derivative.

A "**Digital Option**" or "**Binary Option**" may have exactly two payout profiles. In the case of a "Cash-or-Nothing Warrant", a fixed amount will be paid if the Underlying at the end of the term (in the case of an "American Style" warrant, during the term) is above (Digital Call) or below (Digital Put) a predefined exercise price, otherwise it expires worthless. An "Asset-or-Nothing Warrant" differs in that instead of the payment of a fixed amount, the delivery of the Underlying or the payment of the price of the Underlying is made. In the case of a "One-touch Warrant", it depends on whether it is "in-the-money" at specified points in time during the term of the product.

"**Distribution Fees**" may have been paid to one or more Distributors in the form of a discount on the issue price, as compensation for part of the issue price or in the form of other one-time and/or periodic fees.

"**European Style**" or "**European**" is a warrant which gives the Holder of a specified number of warrants the right, but not the obligation, to buy from ("Call-Option") or sell to ("Put-Option") the Issuer a specified quantity of specified Underlying at the end of the term of the warrant (Exercise Date = maturity) for an agreed price ("Exercise Price"). If Cash Settlement has been agreed, the closing price of the Underlying on the Exercise Date is relevant for the determination of the Cash Settlement Amount.

"Exchange Rate" means, with respect to the Underlying and any relevant date, the Exchange Rate at the specified time on that date and for each currency pair (or at a time as close as possible as fixed by the calculation) between the Reference Currency and the Settlement Currency (indicated as a number of units or fractions of units of the Reference Currency which show the corresponding value of a unit of the Settlement Currency), which will be determined at this time by the Calculation Agent in accordance with sources which it considers, in its reasonable judgment, to be appropriate.

"**Exercise Date**" is, in the case of Derivatives, the Business Day on which the Exercise Notice to the Issuer pursuant to III.E.b)aa)(ii) and III.E.b)bb)(i) of this Issuance Programme is effective; in the case of Derivatives with automatic exercise, the maturity date.

"Exercise Notice" is the exercise notice described in Sections III.E.b)aa)(ii) and III.E.b)bb)(i) of this Issuance Programme.

"**Exercise Price**" or "**Strike Price**" refers to the price at which the buyer of an option can buy (call warrant) or sell (put warrant) a certain Underlying or at which the buyer of a future can buy (long future) or must sell (short future) an Underlying. Structured Products generally have option components whose Strike Price(s) determine the character of the Structured Product.

"**Final Fixing Level**" or "**Final Fixing Value**" is, subject to any amendments in accordance with the Derivatives Terms and the provisions in the definition of Final Fixing Date, an amount in the amount of the Reference Value determined by the Calculation Agent on the Final Fixing Date, regardless of any later reported corrections.

"**Final Fixing Date**" means the calendar day specified in the Final Terms of a Derivatives Series or, if this day is not a Business Day, the next Business Day, if in the judgment of the Calculation Agent a Market Disruption Event has not occurred. If on this day a Market Disruption Event has occurred, the Final Fixing Day is the next Trading Day, on which a Market Disruption Event is no longer continuing. If the next Trading Day without a Market Disruption Event does not occur by the eighth Trading Day immediately following the day which would have been the Final Fixing Day in the absence of a Market Disruption Event having occurred, then (a) this eighth Trading Day shall be the Final Fixing Date regardless of the Market Disruption Event and (b) the Issuer or the Calculation Agent shall determine the Reference Value for the Final Fixing Day by determining the reference price as of the Final Fixing Date by specifying the price or level that the Underlying would have had on this eighth Trading Day in the absence of the occurrence of a Market Disruption, taking into account the market conditions prevailing at this point in time, the last reported, published or recorded level or price of the Underlying and, if applicable, each individual security included in the Underlying, as well as, in its opinion, other significant factors.

"**Highest Amount**" or "**Cap**" is, if applicable, the maximum Cash Settlement Amount specified in the relevant Final Terms, which is owed in respect of the relevant Derivative on the Redemption Date (increased, if applicable, by a bonus amount).

"Highest Amount Factor" is, if applicable, the amount in the Final Terms specified as a percentage of the nominal amount of the relevant Derivative which on the Redemption Date is the maximum Cash Settlement Amount which is owed (increased, if applicable, by a bonus amount).

"Initial Fixing Date" is the calendar day specified in the Final Terms for a Derivatives Series or, if this day is not a Trading Day, the next Trading Day, if, in the judgment of the Issuer or the Calculation Agent, a Market Disruption Event has not occurred. If on this day, in the judgment of the Issuer or the Calculation Agent, a Market Disruption Event has occurred, the Initial Fixing Date is the next Trading Day on which, in the judgment of the Calculation Agent, a Market Disruption Event is no longer subsisting. If the next Trading Day without a Market Disruption Event in respect of the Underlying does not occur by the eighth Trading Day immediately following the date which would have been the Initial Fixing Date in the absence of the occurrence of the Market Disruption Event, then (1) this eighth Trading Day shall be the Initial Fixing Date regardless of the Market Disruption Event and (2) the Issuer or the Calculation Agent shall determine the Reference Value for the Initial Fixing Day by determining the reference price as of the Initial Fixing Date by specifying the price or level that the Underlying would have had on this eighth Trading Day in the absence of the occurrence of a Market Disruption, taking into account the market conditions prevailing at this point in time, the last reported, published or recorded level or price of the Underlying and, if applicable, each individual security included in the Underlying, as well as, in its opinion, other significant factors.

"Initial Fixing Level" or "Initial Fixing Value" is, subject to potential adjustments pursuant to the Derivatives Terms and the provisions in the definition of "Initial Fixing Date, an amount as calculated by the Issuer or the Calculation Agent from the Reference Value determined on the Initial Fixing Date, subject to any corrections published later.

"Issue Date" is the calendar day specified in the relevant Final Terms or if this day is not a Business Day, the next Business Day.

**"Knock-in Level"** is the value specified in the Final Terms for a Derivatives Series which must be reached during the Observation Period in order for the exercise rights under a down-and-in option component or an up-and-in option component of certain categories of Derivatives can be exercised.

**"Knock-Out Level"** is the value specified in the Final Terms for a Derivatives Series which must be reached during the Observation Period in order for the exercise rights under a down-and-out option component or an up-and-out option component of certain categories of Derivatives can be exercised.

"Market Disruption" is any event which is identified in Section IV.A.c) or in the relevant Final Terms as a Market Disruption Event.

"**Minimum Coupon**" means a minimum interest, payable on the Nominal Value of the Derivative. The Minimum Coupon provides a minimum return per Derivative for the period between the Issue Date and the Redemption Date.

"**Minimum Redemption Amount**" or "**Floor**" is, if applicable, the minimum Cash Settlement Amount specified in the Final Terms which on the Redemption Date is owed in respect of the relevant Derivative (increased, if applicable, by a bonus amount).

"**Minimum Repayment Factor**" is, if applicable, the amount in the Final Terms specified as a percentage of the nominal amount of the relevant Derivative which on the Redemption Date is the minimum Cash Settlement Amount which is owed (increased, if applicable, by a bonus amount).

"Net dividend" means the dividend payment after deduction of taxes and other charges.

"**Nominal Value**" means, subject to possible amendments in accordance with the Derivatives Terms, the nominal value of a Derivative of a Derivatives Series.

"Observation Times" are the points in time specified in the Final Terms.

"**Observation Period**" is, in relation to any Derivatives Series, the period of time from (and including) the Issue Date until (and excluding) the first Observation Time, as well as, if several Coupons are paid, each period of time from (and including) the relevant interest payment date until (and excluding) the next following interest payment date and, if interest must be calculated for a period of time which does not end on the relevant interest payment date (and does not include it), then the period of time from an including the immediately preceding interest payment date (or if none, from the Issue Date) until (and excluding) the relevant payment date.

"Paying and Exercise Agent" is, subject to any contrary provisions in the relevant Final Terms, Zürcher Kantonalbank.

"Primary Listing" means the first listing of a participating security, a bond or a Derivative on an official exchange.

"Quanto" is used in the product name if the currency of a Derivative and the currency of the Underlying or a component of the Underlying are not the same and the investor is hedged against the resulting Exchange Rate risk. Such a Derivative is also identified as a "Quanto Derivative". The redemption methods are modified in such a way that a change in the Exchange Rate between the relevant currencies does not have any influence on the redemption, but just on the relative performance of the Underlying in its reference currency. It should be noted that the difference between the two currencies during the term of the Derivative influence the fair value of the Derivative. If the interest level of the currency of the Underlying or components of the Underlying is lower than the interest level of the currency of the Derivative, the fair value of the Derivative decreases.

"Reference Currency" is the currency specified in the Final Terms.

"**Reference Exchange**" means with respect to the Underlying the reference exchange(s) specified in the Final Terms, or each successor of such a Reference Exchange, as accepted and specified by the Calculation Agent. To the extent that a Reference Exchange is not listed in the Final Terms, the Reference Exchanges listed in this Issuance Programme for the relevant type of Underlying shall apply.

"**Reference Value**" is, with respect to a day, subject to any amendments in accordance with the Derivatives Conditions, an amount (to be considered a monetary equivalent in the Settlement Currency or Reference Currency) in the amount of the closing price of the Underlying or a component of the Underlying, as reported by the Reference Exchange and determined by the Calculation Agent.

"**Sales commissions**" may be paid to one or more distribution partners in the form of a discount on the issue price, as compensation for part of the issue price or in the form of other one-off and/or recurring fees. Possible sales commissions are included in the TER.

"Settlement" is either cash settlement ("Cash Settlement") or physical delivery of the Underlying or a component of the Underlying ("Physical Settlement"), as specified in the relevant Final Terms.

"**Settlement Currency**" is the currency specified in the Final Terms. If the Final Terms do not specify a specific currency, it is the currency of the relevant Derivatives Series.

"**Settlement Date**" or "**Redemption Date**" is the calendar day specified in the Final Terms for a Derivatives Series on which the payment of the Cash Settlement or physical delivery becomes due. It can, in particular for warrants, also be specified as a number of calendar days following the Exercise Date.

"SIX SIS AG" is the clearing system, which is located at Baslerstrasse 100, 4600 Olten, Switzerland.

"**Symbol**" means the symbol that corresponds to the relevant Swiss securities number for listed Derivatives. The Symbol is generated by the Issuer or the Lead Manager and agreed with Telekurs.

"**Trading Day**" is a day on which the Relevant Exchange for an Underlying or of a component of the Underlying, to the extent this is an exchange or a trading system which is open for trading during regular trading hours; and, to the extent the Relevant Exchange is not a securities exchange or trading system, a Business Day, except for days on which business banks and currency markets in the country in which the Relevant Exchange is located, are closed.

"Underlying" is the reference asset specified in the Final Terms for a Derivatives Series.

#### VII. RESPONSIBILITY FOR THE ISSUANCE PROGRAMME

Zürcher Kantonalbank accepts responsibility for the content of this Issuance Programme and hereby states that to its knowledge the statements in this Issuance Programme are accurate and no significant circumstances have been omitted.

Zürcher Kantonalbank Finance (Guernsey) Limited accepts responsibility for the content of this Issuance Programme and hereby states that to its knowledge the statements in this Issuance Programme, to the extent that they relate to Zürcher Kantonalbank Finance (Guernsey) Limited, are accurate and no significant circumstances have been omitted.

### For Zürcher Kantonalbank:

René Zangger Member of the Management Tamer Dürr Vice President

### For Zürcher Kantonalbank Finance (Guernsey) Limited:

Felix Oegerli Chairman Samuel Stadelmann Vice Chairman

15 April 2019

## Annex 1A

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## Annual Report 2017 of Zürcher Kantonalbank

Can be reviewed online with following link:

https://www.zkb.ch/en/lg/ew/dsc-investor-relations/annual-report.html

## Annex 1B

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## Annual Report 2018 of Zürcher Kantonalbank

Can be reviewed online with following link:

https://www.zkb.ch/en/lg/ew/dsc-investor-relations/annual-report.html

Annex 2A

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Annual financial statement 2017 of Zürcher Kantonalbank Finance (Guernsey) Limited

# ZÜRCHER KANTONALBANK FINANCE (GUERNSEY) LIMITED

**ANNUAL REPORT & AUDITED FINANCIAL STATEMENTS** 

For the year ended 31 December 2017

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# ZÜRCHER KANTONALBANK FINANCE (GUERNSEY) LIMITED COMPANY INFORMATION

| Directors         | F O Oegerli, Chairman (i)<br>B U Gabathuler (resigned 13 June 2017)<br>S Stadelmann, Vice Chairman (i) (appointed 18 October 2017)<br>P D H Hodgson<br>J W Renouf (ii)          |
|-------------------|---|
|                   | <ul><li>(i) Member of Audit Committee</li><li>(ii) Chairman of Audit Committee</li></ul>  |
| Secretary         | Butterfield Management Services (Guernsey) Limited  |
| Registered office | Regency Court<br>Glategny Esplanade<br>St Peter Port<br>Guernsey GY1 3AP  |
| Administrator     | Butterfield Trust (Guernsey) Limited<br>PO Box 25<br>Regency Court<br>Glategny Esplanade<br>St Peter Port<br>Guernsey GY1 3AP   |
| Auditor           | Ernst & Young LLP<br>Royal Chambers<br>St Julian's Avenue<br>St Peter Port<br>Guernsey GY1 4AF  |
| Bankers           | Zürcher Kantonalbank<br>Bahnhofstrasse 9<br>PO Box 8010<br>Zürich<br>Switzerland<br>Butterfield Bank (Guernsey) Limited<br>Regency Court<br>Glategny Esplanade<br>St Peter Port |
|                   | Guernsey GY1 3AP  |
| Custodian         | Zürcher Kantonalbank<br>Bahnhofstrasse 9<br>PO Box 8010<br>Zürich<br>Switzerland  |

## ZÜRCHER KANTONALBANK FINANCE (GUERNSEY) LIMITED DIRECTORS' REPORT

The directors submit their report and the audited financial statements for the year ended 31 December 2017.

#### Activities

The principal activity of Zürcher Kantonalbank Finance (Guernsey) Limited ("the company") is to carry on business as a finance company and to borrow or raise money by the issue of financial instruments of whatsoever nature.

#### Results

The results of the company are shown in the Statement of Comprehensive Income on page 5.

## Dividend

The directors do not recommend the payment of a dividend.

#### Directors

The directors of the company are those listed in the Company Information.

#### Statement of directors' responsibilities in respect of the financial statements

The directors are responsible for preparing the financial statements in accordance with applicable Guernsey law and generally accepted accounting principles.

Guernsey company law requires the directors to prepare financial statements for each financial year which give a true and fair view of the state of affairs of the company and of the profit or loss of the company for that year. In preparing those financial statements, the directors should:

- select suitable accounting policies and then apply them consistently;
- make judgements and estimates that are reasonable and prudent;
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the company will continue in business.

The directors are responsible for keeping proper accounting records that disclose with reasonable accuracy at any time the financial position of the company and to enable them to ensure that the financial statements comply with the Companies (Guernsey) Law, 2008. They are also responsible for safeguarding the assets of the company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

So far as each of the directors is aware, there is no relevant audit information of which the company's auditor is unaware, and each has taken all the steps he ought to have taken as a director to make himself aware of any relevant audit information, and to establish that the company's auditor is aware of that information.

#### Auditor

A resolution to reappoint Ernst & Young LLP as auditor will be put to the members at the Annual General Meeting.

For and on behalf of the Board

or and on behalf of Butterfield Management Services (Guernsey) Limited Secretary

06/03/18 Date



### INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF ZÜRCHER KANTONALBANK FINANCE (GUERNSEY) LIMITED

We have audited the financial statements of Zürcher Kantonalbank Finance (Guernsey) Limited for the year ended 31 December 2017 which comprise the Statement of Comprehensive Income, the Statement of Financial Position, the Statement of Changes in Equity, the Statement of Cash Flows and the related notes 1 to 15. The financial reporting framework that has been applied in their preparation is applicable law and International Financial Reporting Standards ('IFRS') as adopted by the European Union.

In our opinion, the financial statements:

- give a true and fair view of the state of the Company's affairs as at 31 December 2017 and of its profit for the year then ended;
- have been properly prepared in accordance with IFRS as adopted by the European Union; and
- have been prepared in accordance with the requirements of the Companies (Guernsey) Law, 2008.

#### **Basis for opinion**

We conducted our audit in accordance with International Standards on Auditing (UK) ('ISAs (UK)') and applicable law. Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the financial statements section of our report below. We are independent of the Company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the FRC's Ethical Standard, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

#### Use of our report

This report is made solely to the Company's members, as a body, in accordance with Section 262 of the Companies (Guernsey) Law, 2008. Our audit work has been undertaken so that we might state to the company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the company and the company's members as a body, for our audit work, for this report, or for the opinions we have formed.

#### Conclusions relating to going concern

We have nothing to report in respect of the following matters in relation to which the ISAs (UK) require us to report to you where:

- the directors' use of the going concern basis of accounting in the preparation of the financial statements is not appropriate; or
- the directors have not disclosed in the financial statements any identified material uncertainties that may cast significant doubt about the Company's ability to continue to adopt the going concern basis of accounting for a period of at least twelve months from the date when the financial statements are authorised for issue.

#### Other information

The other information comprises the information included in the Company Information and Directors' Report, other than the financial statements and our auditor's report thereon. The directors are responsible for the other information.

Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in this report, we do not express any form of assurance conclusion thereon.



In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether there is a material misstatement in the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of the other information, we are required to report that fact.

We have nothing to report in this regard.

#### Matters on which we are required to report by exception

We have nothing to report in respect of the following matters in relation to which the Companies (Guernsey) Law, 2008 requires us to report to you if, in our opinion:

- proper accounting records have not been kept by the company; or
- the financial statements are not in agreement with the company's accounting records and returns; or
- we have not received all the information and explanations we require for our audit.

#### **Responsibilities of directors**

As explained more fully in the statement of directors' responsibilities set out on page 2, the directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the directors are responsible for assessing the company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the company or to cease operations, or have no realistic alternative but to do so.

#### Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

A further description of our responsibilities for the audit of the financial statements is located on the Financial Reporting Council's website at <u>https://www.frc.org.uk/auditorsresponsibilities</u>. This description forms part of our auditor's report.

Ernst & Young LL Guernsey, Channel Islands Date: 6 March 2018

## ZÜRCHER KANTONALBANK FINANCE (GUERNSEY) LIMITED STATEMENT OF COMPREHENSIVE INCOME For the year ended 31 December 2017

|  | Notes    | 31 De<br>CHF | Year ended<br>ecember 2017<br>CHF | 31 De<br>CHF   | Year ended<br>ecember 2016<br>CHF |
|--|----------|--------------|-----------------------------------|----------------|-----------------------------------|
| Net trading income   | 4        |              | 21,995,832                        |                | 22,619,977                        |
| <b>Other operating income</b><br>Bank interest receivable<br>Bond interest payable |          | 380<br>-     |                                   | 441<br>(2,781) |                                   |
| Other operating income / (expenses)  |          |              | 380                               | ·              | (2,340)                           |
| Total income   |          | -            | 21,996,212                        | -              | 22,617,637                        |
| Operating expenses   | 5        |              | (13,023,309)                      |                | (13,110,892)                      |
| Net comprehensive income for the financ  | ial year | -            | 8,972,903                         | -              | 9,506,745                         |

All of the items in the above are derived from continuing operations.

There were no other comprehensive income items in the period.

## ZÜRCHER KANTONALBANK FINANCE (GUERNSEY) LIMITED STATEMENT OF FINANCIAL POSITION

As at 31 December 2017

|   | Notes  | 31 December 2017<br>CHF | 31 December 2016<br>CHF  |
|---|--------|-------------------------|--------------------------|
| Assets  |        | Cin                     |                          |
| Cash, amounts due from banks, money at call<br>Accrued interest receivable and prepayments<br>Securities held for trading, designated at fair value | 6      | 63,461,078<br>9,057,267 | 99,217,256<br>17,316,266 |
| through profit or loss<br>Derivative financial instruments held at fair value   | 7      | 1,483,779,361           | 1,894,265,596            |
| through profit or loss  | 8, 9b  | 26,453,275              | 35,609,914               |
| Total Assets  |        | 1,582,750,981           | 2,046,409,032            |
| Liabilities   |        |                         |                          |
| Amounts due to banks<br>Accrued interest payable and accrued expenses   | 6      | 51,683,345<br>1,798,025 | 83,129,520<br>2,104,235  |
| Derivative financial instruments held at fair value<br>through profit or loss<br>Financial liabilities held at fair value through                   | 8, 9b  | 44,068,914              | 91,843,650               |
| profit or loss  | 9a, 9b | 1,382,232,149           | 1,775,335,982            |
| Total Liabilities   |        | 1,479,782,433           | 1,952,413,387            |
| Equity  |        |                         |                          |
| Share capital   | 10     | 1,000,000               | 1,000,000                |
| Retained earnings   |        | 101,968,548             | 92,995,645               |
| Total Equity  |        | 102,968,548             | 93,995,645               |
| Total Liabilities and Equity  |        | 1,582,750,981           | 2,046,409,032            |

The financial statements on pages 5 to 23 were approved by the Board of Directors on and are signed on its behalf by:

F O Oegerli Chairman

March 2018 Date

S-N J W Renouf

Director

## ZÜRCHER KANTONALBANK FINANCE (GUERNSEY) LIMITED STATEMENT OF CHANGES IN EQUITY For the year ended 31 December 2017

|   | Share capital<br>CHF | Retained<br>earnings<br>CHF | Total<br>equity<br>CHF  |
|---|----------------------|-----------------------------|-------------------------|
| <b>At 1 January 2016</b><br>Net comprehensive income for the financial year | 1,000,000            | 83,488,900<br>9,506,745     | 84,488,900<br>9,506,745 |
| Balance at 31 December 2016   | 1,000,000            | 92,995,645                  | 93,995,645              |
|   | CHF                  | CHF                         | CHF                     |
| <b>At 1 January 2017</b><br>Net comprehensive income for the financial year | 1,000,000            | 92,995,645<br>8,972,903     | 93,995,645<br>8,972,903 |
| Balance at 31 December 2017   | 1,000,000            | 101,968,548                 | 102,968,548             |

## ZÜRCHER KANTONALBANK FINANCE (GUERNSEY) LIMITED STATEMENT OF CASH FLOWS For the year ended 31 December 2017

| No   | te      | Year ended<br>31 December 2017<br>CHF | Year ended<br>31 December 2016<br>CHF |
|--|---------|---------------------------------------|---------------------------------------|
| Operating activities   |         |                                       |                                       |
| Net comprehensive income for the financial year  |         | 8,972,903                             | 9,506,745                             |
| Adjustment for changes in working capital:   |         |                                       |                                       |
| Decrease in accrued interest receivable and prepaymer  | nts     | 8,258,999                             | 1,265,198                             |
| Decrease / (increase) in securities held for trading,<br>designated at fair value through profit or loss |         | 410,486,235                           | (252,339,807)                         |
| Decrease in financial assets designated at fair value thr<br>profit or loss                              | rough   | -                                     | 199,858,079                           |
| Decrease in financial assets held to maturity  |         | -                                     | 2,030,643                             |
| Decrease in derivative financial instruments held at fai<br>through profit or loss                       | r value | (38,618,097)                          | (30,374,607)                          |
| Decrease in accrued interest payable and accrued expe  | nses    | (306,210)                             | (145,782)                             |
| (Decrease) / increase in financial liabilities held at fair through profit or loss                       | value   | (393,103,833)                         | 41,107,847                            |
| Net cash outflows from operating activities  |         | (4,310,003)                           | (29,091,684)                          |
| Cash and cash equivalents at 1 January   |         | 16,087,736                            | 45,179,420                            |
| Cash and cash equivalents at 31 December 6   | ;       | 11,777,733                            | 16,087,736                            |

#### 1 Corporate information

Zürcher Kantonalbank Finance (Guernsey) Limited is a finance company and borrows or raises money by the issue of financial instruments of whatsoever nature. The company was incorporated and is registered in Guernsey with the registered office being at Regency Court, Glategny Esplanade, St Peter Port, Guernsey, GY1 3AP.

#### 2 Principal accounting policies

The following accounting policies have been applied consistently in dealing with items which are considered material in relation to the financial statements of the company.

#### **Basis of preparation**

The financial statements have been prepared under the historical cost convention as modified by the revaluation to fair value through profit or loss of derivative financial instruments, over-the-counter ("OTC") options, securities, term deposits with banks and financial liabilities and in accordance with International Financial Reporting Standards ("IFRS") as adopted by the European Union.

#### Going concern

The company's financial position, its cash flows and liquidity position are set out in the financial statements. In addition, note 12 to the financial statements includes the company's risk management and policies, details of its financial instruments, its exposures to credit risk and liquidity risk and its objectives, policies and processes for managing its capital. Based on the review of the 2018 and 2019 financial forecasts, the directors consider that the company has adequate financial resources and believe that the company is well placed to manage its business risks successfully and to continue in operational existence for the foreseeable future. As such the directors are satisfied that it is appropriate to prepare the financial statements on a going concern basis.

#### Statement of compliance

The financial statements of the company have been prepared in accordance with IFRS as adopted by the European Union.

#### Standards, interpretations and amendments issued but not yet effective

At the date of authorisation of these financial statements, the following relevant standards and interpretations, which have not been applied, were in issue but not yet effective:-

#### IFRS 9 Financial Instruments

In July 2014, the International Accounting Standards Board ("IASB") issued the final version of IFRS 9 Financial Instruments that replaces IAS 39 Financial Instruments: Recognition and Measurement and all previous versions of IFRS 9. IFRS 9 is effective for annual periods beginning on or after 1 January 2018, with early application permitted. Except for hedge accounting, retrospective application is required, but providing comparative information is not compulsory. The company's managment have performed a review of the expected impact of the adopting IFRS 9 and plans to adopt the new standard on the required effective date.

(a) Classification and measurement

The company's managment has assessed the classification of financial instruments as at the date of initial application and will apply such classification retrospectively. Based on that assessment:

- All financial assets previously held at fair value will continue to be measured at fair value;
- Debt instruments, and the accrued interest generated thereon, are acquired for the purpose of generating short term profit and therefore meet the held-for-trading criteria and will continue to be measured at fair value through the profit and loss ("FVTPL").
- Cash and cash equivalents currently classified as loans and receivables are held to collect contractual cash flows and give rise to cash flows representing solely payments of principlal and interest. Thus, such instruments will continue to be measured at amortised cost under IFRS 9.
- The classification of financial liabilities under IFRS 9 remains broadly the same as under IAS 39. Financial liabilities will therefore be measured at FVTPL when they meet the definition of held for trading or when they are designated as such on initial recognition using the fair value option under IFRS 9.

#### (b) Impairment

IFRS 9 requires the company to record expected credit losses on all of its financial assets that are not held at fair value through the profit and loss, either on a 12-month or lifetime basis. For all trade receivables that are not held at FVTPL the company plans to apply the simplified approach and record lifetime expected losses through the application of a provision matrix based on levels of historic bad debts. Given the company did not have any trade receivable balances as at the year end, the company's management does not expected a significant impact from applying the impairment methodology.

#### (c) Hedge accounting

The company believes that all existing hedge relationships that are currently designated in effective hedging relationships will still qualify for hedge accounting under IFRS 9. As IFRS 9 does not change the general principles of how an entity accounts for effective hedges, the company's management does not expect a significant impact as a result of applying IFRS 9.

#### 2 Principal accounting policies (continued)

#### (e) Impact of adoption of IFRS 9

In line with the characterisitics of the company's financial instruments as well as its approach to their management, the company does not intend to revoke or make any new designationas on the date of initial application. It is anticipated that the adoption of IFRS 9 will not result in changes to the carrying amount of the company's financial instruments due to changes in measurement categories. All financial assets that are classified as FVTPL under IAS 39 will continue be classified as FVTPL under IFRS 9. All financial assets that were classified as loans and receivables and measured at amortised cost will continue to be.

In addition, the application of the expected credit loss mode under IFRS 9 will not significantly change the carrying amounts of the company's amortised cost financial assets. An expected credit loss allowance of CHF nil would have been recorded against the company's receivables had IFRS 9 been adopted as at the year end, compared to no impairment actually recorded under IAS 39.

The carrying amount of amortised cost instruments will continue to approximate these instruments' fair values on the date of transition after transitioning to IFRS 9.

#### IFRS 15 Revenue from Contracts with Customers

IFRS 15 was issued in May 2014 and establishes a five-step model to account for revenue arising from contracts with customers. Under IFRS 15, revenue is recognised at an amount that reflects the consideration to which an entity expects to be entitled in exchange for transferring goods or services to a customer. The new revenue standard will supersede all current revenue recognition requirements under IFRS. Either a full retrospective application or a modified retrospective application is required for annual periods beginning on or after 1 January 2018. Early adoption is permitted. The company's management have performed a reivew of the expected impact of adopting IFRS 15 and plans to adopt the new standard on the required effective date using the full retrospective method.

#### (a) Presentation and disclosure requirements

IFRS 15 provides presentation and disclosure requirements, which are more detailed than under current IFRS. Many of the disclosure requirements in IFRS 15 are completely new. The company's management expects there to be no impact from the adoption of the amendments on its financial position or performance as all revenue from contracts with customers is accounted for under IFRS 9 and therefore outside the scope of IFRS 15.

#### Standards, interpretations and amendments issued but not yet effective (continued)

Amendments to IFRS 10 and IAS 28: Sale or Contribution of Assets between an Investor and its Associate or Joint Venture The amendments address the conflict between IFRS 10 and IAS 28 in dealing with the loss of control of a subsidiary that is sold or contributed to an associate or joint venture. The IASB has deferred the effective date of these amendments indefinitely, but an entity that early adopts the amendments must apply them prospectively. The company's management expects there to be no impact from these amendments on its financial position or performance.

#### Changes in accounting policies and disclosures

The company applied for the first time certain standards and amendments, which are effective for annual periods beginning on or after 1 January 2017. The company has not early adopted any other standard, interpretation or amendment that has been issued but is not yet effective.

The following new standards and amendments applied for the first time in 2017 but did not have a material impact on the annual financial statements of the company:

Amendments to IAS 7 Statement of Cash Flows: Disclosure Initiative

Amendments to IFRS 12 Disclosure of Interest in Other Entities: Clarification of the scope of disclosure requirements in IFRS 12 from Annual Improvement Cycle - 2014-2016

Amendments to IAS 12 Income Taxes: Recognition of Deferred Tax Assets for Unrealised Losses.

#### Cash and cash equivalents

Cash and cash equivalents, as referred to in the statement of cash flows, comprises of cash in hand, current accounts with banks and amounts due from banks on demand or with an original maturity of three months or less.

#### Foreign exchange

Assets and liabilities denominated in foreign currencies are translated into Swiss francs based on the rates of exchange ruling at the statement of financial position date. Foreign currency transactions during the reporting period are translated at the rates of exchange ruling at the transaction date. Foreign exchange gains and losses are included in the statement of comprehensive income.

The Swiss franc is the functional and presentational currency of the company, as it is of Zürcher Kantonalbank, the parent company. Also, a significant proportion of the company's transactions are done in Swiss francs.

#### Investment income

Investment income comprises of interest receivable on the maturity of the company's term deposits with banks. Interest income is recognised as it accrues and is included in the statement of comprehensive income.

#### 2 Principal accounting policies (continued)

# Financial instruments designated at fair value through profit or loss - initial recognition, derecognition and subsequent measurement

The company recognises a financial asset or a financial liability when, and only when, it becomes a party to the contractual provisions of the instrument. Purchases and sales of financial instruments, OTC options, securities and term deposits with banks are recognised on the trade date and are initially designated and measured at fair value through profit or loss consistent with the company's documented risk management strategy.

Financial instruments, OTC options, securities and term deposits with banks are derecognised when the maturity date or final fixing date has expired and the rights to receive cashflows or meet obligations has passed. Gains and losses on maturity are recognised in net trading income in the statement of comprehensive income.

The financial instruments, OTC options, securities and term deposits with banks are subsequently valued according to the fair value principle. Changes in fair value are recorded in gains less losses on instruments designated at fair value. The accrued interest receivable and payable, prepayments and accrued expenses at the year end are valued according to the fair value principle.

#### Fair value of financial instruments

The company measures financial instruments at fair value at each balance sheet date. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

IFRS 13 establishes a single source of guidance under IFRS for all fair value measurements. IFRS 13 does not change when an entity is required to use fair value, but provides guidance on how to measure fair value under IFRS. IFRS 13 defines fair value as an exit price. All assets and liabilities for which fair value is measured or disclosed in the financial statements are categorised within the fair value hierarchy, as described in note 11. The carrying value of other financial assets and liabilities approximate their fair value.

#### Fair value of financial instruments (continued)

For assets and liabilities that are recognised in the financial statements on a recurring basis, the company determines whether transfers have occurred between levels in the hierarchy by re-assessing categorisation (based on the lowest level input that is significant to the fair value measurement as a whole) at the end of each reporting period. There have been no transfers between levels during the year.

#### **Offsetting financial instruments**

Financial assets and liabilities are offset and the net amount reported in the statement of financial position if, and only if, there is a currently enforceable legal right to offset the recognised amounts and there is an intention to settle on a net basis, or to realise the asset and settle the liability simultaneously. This is not generally the case with master netting agreements, and the related assets and liabilities are presented gross in the statement of financial position.

#### Impairment of financial assets

At the end of each reporting period the company assesses whether there is any objective evidence that a financial asset or a group of financial assets is impaired. A financial asset or a group of financial assets is deemed to be impaired if, and only if, there is objective evidence of impairment as a result of one or more events that has occurred after the initial recognition of the asset (an incurred 'loss event' or 'events') which has had an impact on the estimated future cash flows of the financial asset or the group of financial assets that can be reliably estimated.

#### 3 Taxation

The company is taxed at the company standard rate (0%) in Guernsey.

## ZÜRCHER KANTONALBANK FINANCE (GUERNSEY) LIMITED NOTES TO THE FINANCIAL STATEMENTS For the year ended 31 December 2017

| 4 | Net trading income   | Year ended<br>31 December<br>2017 | Year ended<br>31 December<br>2016 |
|---|--|-----------------------------------|-----------------------------------|
|   |  | CHF                               | CHF                               |
|   | Gains less losses on instruments held for trading  |                                   |                                   |
|   | Foreign currency   | 373,794                           | (687,205)                         |
|   | Trading securities<br>Other income   | 343,272<br>(2,500)                | 3,773,423<br>(8,169)              |
|   | Gains less losses on fair value hedging  |                                   |                                   |
|   | Gains less losses from fair value direct hedged items  | 1,485,983                         | 775,241                           |
|   | Gains less losses from fair value direct hedging instruments                                   | (750,818)                         | 718,893                           |
|   | Gains less losses on instruments designated at fair value                                      |                                   |                                   |
|   | Financial assets designated at fair value through profit or loss                               |                                   | (458,345)                         |
|   | Financial liabilities designated at fair value through profit or loss                          | (91,924,597)                      | (91,914,735)                      |
|   | Derivatives managed with financial instruments designated at fair value through profit or loss | 112,470,698                       | 110,420,874                       |
|   |  | 21,995,832                        | 22,619,977                        |
| _ |  |                                   |                                   |
| 5 | Operating expenses   | Year ended<br>31 December         | Year ended<br>31 December         |
|   |  | 31 December<br>2017               | 31 December<br>2016               |
|   |  | 2017<br>CHF                       | 2016<br>CHF                       |
|   |  | chi                               | ciii                              |
|   | Administrative expens  | 644 224                           |                                   |
|   | Administration fees<br>Audit fees  | 640,729                           | 650,173                           |
|   | Directors' fees  | 86,407<br>9,024                   | 82,719<br>9,459                   |
|   | Zürcher Kantonalbank service costs   | 5,024                             | 3,433                             |
|   | Development costs  | 1,500,000                         | 1,500,000                         |
|   | Product issuing costs  | 1,500,000                         | 1,500,000                         |
|   | Distribution costs   | 6,124,279                         | 6,125,396                         |
|   | Risk management fee  | 2,000,000                         | 2,000,000                         |
|   | Keep-well agreement charges  | 644,429                           | 780,022                           |
|   | Employee expenses<br>Salaries  | 353,525                           | 300,395                           |
|   | Income tax   | 57,328                            | 58,262                            |
|   | Social security  | 49,908                            | 46,500                            |
|   | Health insurance   | 20,138                            | 20,330                            |
|   | Other staff expenses   | 33                                | -                                 |
|   | Other expenses   | 37,509                            | 37,636                            |
|   |  | 13,023,309                        | 13,110,892                        |
|   |  |                                   |                                   |
| 6 | Cash, amounts due from / to banks, money at call   | 31 December                       | 31 December                       |
|   |  | 2017                              | 2016                              |
|   |  | CHF                               | CHF                               |
|   | Due from banks, European Union - short term deposits   | 7                                 | 20,000,000                        |
|   | Due from banks, Guernsey   | 672,059                           | 347,799                           |
|   | Due from banks, Zürcher Kantonalbank   | 62,789,019                        | 78,869,457                        |
|   |  | 63,461,078                        | 99,217,256                        |
|   | Due to banks, European Union - other   | (4)                               |                                   |
|   | Due to banks, Zürcher Kantonalbank   | (51,683,341)                      | (83,129,520)                      |
|   |  | (51,683,345)                      | (83,129,520)                      |
|   | Total net cash, amounts due from / to banks, money at call                                     | 11 777 757                        | 16 097 720                        |
|   | rota net can, andulto due non / to banks, money at can   | 11,777,733                        | 16,087,736                        |

The amounts due from banks in the European Union - short term deposits accrued interest income at fixed market rates. The amounts due from banks in Guernsey accrue interest income at variable market rates. The amounts due to and from Zürcher Kantonalbank do not accrue interest. The amounts due to banks in the European Union - other accrued interest income at variable market rates.

## ZÜRCHER KANTONALBANK FINANCE (GUERNSEY) LIMITED NOTES TO THE FINANCIAL STATEMENTS For the year ended 31 December 2017

| 7 | Securities held for trading, designated at fair value through profit or loss | 31 December<br>2017<br>CHF | 31 December<br>2016<br>CHF |
|---|--|----------------------------|----------------------------|
|   | At fair value<br>Bonds receivable at fair value                              | 1 402 602 226              | 1 004 101 056              |
|   |  | 1,483,683,236              | 1,894,101,956              |
|   | Equity instruments at fair value   | 96,125                     | 163,640                    |
|   |  | 1,483,779,361              | 1,894,265,596              |
|   | By maturity  |                            |                            |
|   | Up to one year   | 778,454,871                | 803,836,757                |
|   | From one to two years  | 468,941,680                | 722,499,278                |
|   | From two to three years  | 142,525,818                | 223,358,947                |
|   | From three to four years   | 38,237,411                 | 40,813,049                 |
|   | From four to five years  | 8,192,338                  | 45,874,840                 |
|   | From five years and over   | 47,427,243                 | 57,882,725                 |
|   |  | 1,483,779,361              | 1,894,265,596              |

The bonds receivable accrue interest income at fixed rates between 0% and 11.75%, and floating market rates.

| 8 | Derivative financial instruments held at fair value through profit or loss | 31 December             | 31 December               | 31 December                |
|---|--|-------------------------|---------------------------|----------------------------|
|   |  | 2017                    | 2017                      | 2017                       |
|   |  | Long                    | Short                     | Net position               |
|   |  | CHF                     | CHF                       | CHF                        |
|   | At fair value  | Chr                     | Chr                       | Chr                        |
|   | Premium paid / (received)  | 4 566 227               | (53 463 335)              | (47.007.400)               |
|   | Unrealised gain  | 4,566,237<br>21,887,038 | (52,463,735)<br>8,394,821 | (47,897,498)<br>30,281,859 |
|   | on carsed gain   | 21,007,050              | 0,394,021                 | 50,201,859                 |
|   |  | 26,453,275              | (44,068,914)              | (17,615,639)               |
|   |  | 20,100,210              | (14,000,014)              | (17,013,033)               |
|   |  | 31 December             | 31 December               | 31 December                |
|   |  | 2016                    | 2016                      | 2016                       |
|   |  | Long                    | Short                     | Net position               |
|   |  | CHF                     | CHF                       | CHF                        |
|   | At fair value  |                         |                           |                            |
|   | Premium paid / (received)  | 6,893,687               | (93,088,185)              | (86, 194, 498)             |
|   | Unrealised gain  | 28,716,227              | 1,244,535                 | 29,960,762                 |
|   |  |                         |                           |                            |
|   |  | 35,609,914              | (91,843,650)              | (56,233,736)               |
|   |  |                         |                           |                            |
| 9 | Financial liabilities held at fair value through profit or loss            |                         |                           |                            |
| 3 | Financial habilities new at fair value through profit or loss              | 31 December             | 31 December               | 31 December                |
|   |  | 2017                    | 2017                      | 2017                       |
|   |  | At cost                 | Unrealised                | At fair value              |
|   |  |                         | gain / (loss)             |                            |
|   | 9 a) Financial liabilities - structured products by underlying assets      | CHF                     | CHF                       | CHF                        |
|   | Commodities  | 969,400                 | (20,943)                  | 948,457                    |
|   | Credit derivatives   | 145,011,061             | 9,849,600                 | 154,860,661                |
|   | Equities / securities  | 970.084,441             | 23,621,352                | 993,705,793                |
|   | Foreign exchange   | 102,272,962             | (5,303,603)               | 96,969,359                 |
|   | Interest instruments   | 92,949,736              | 6,793,340                 | 99,743,076                 |
|   | Mixed derivatives  | 35,874,754              | 130,049                   | 36,004,803                 |
|   |  | 1,347,162,354           | 35,069,795                | 1,382,232,149              |
|   |  |                         |                           |                            |
|   |  | 31 December             | 31 December               | 31 December                |
|   |  | 2016                    | 2016                      | 2016                       |
|   |  | At cost                 | Unrealised                | At fair value              |
|   |  |                         | gain / (loss)             |                            |
|   |  | CHF                     | CHF                       | CHF                        |
|   | Credit derivatives   | 139,519,051             | (1,282,518)               | 138,236,533                |
|   | Equities / securities  | 1,211,225,028           | 590,476                   | 1,211,815,504              |
|   | Foreign exchange   | 101,311,877             | 1,067,660                 | 102,379,537                |
|   | Interest instruments   | 175,995,266             | 1,867,480                 | 177,862,746                |
|   | Mixed derivatives  | 145,884,470             | (8,350,962)               | 137,533,508                |
|   | Precious metals  | 7,844,275               | (336,121)                 | 7,508,154                  |
|   |  | 4 704 770 007           | 10.113.000                | 4 775 535 66-              |
|   |  | 1,781,779,967           | (6,443,985)               | 1,775,335,982              |

## ZÜRCHER KANTONALBANK FINANCE (GUERNSEY) LIMITED NOTES TO THE FINANCIAL STATEMENTS For the year ended 31 December 2017

#### 9 Financial liabilities held at fair value through profit or loss (continued)

| 2017<br>Up to<br>one year<br>CHF<br>5,132,912<br>29,256,651<br>588,385,286 | 2017<br>From one to<br>two years<br>CHF<br>5,262,478<br>23,656,535<br>231,111,985   | 2017<br>From two to<br>three years<br>CHF<br>4,699,994<br>948,457<br>58,221,446   | 2017<br>From three to<br>four years<br>CHF<br>1,020,951  | 2017<br>From four to<br>five years<br>CHF<br><u>1,200,096</u>   | 2017<br>Five years<br>and over<br>CHF<br><u>9,136,844</u>   | 31 Decembe<br>2013<br>Tota<br>26,453,275  |
|--|---|---|--|---|---|---|
| one year<br>CHF<br><u>5,132,912</u><br>29,256,651                          | two years<br>CHF<br><u>5,262,478</u><br>-<br>23,656,535   | three years<br>CHF<br><u>4,699,994</u><br>948,457<br>58,221,446   | four years<br>CHF<br><u>1,020,951</u>  | five years<br>CHF<br>1,200,096  | and over<br>CHF   | Tota<br>CHI<br>26,453,275   |
| CHF<br><u>5,132,912</u><br>29,256,651                                      | CHF<br>5,262,478<br>23,656,535  | CHF<br>4,699,994<br>948,457<br>58,221,446   | CHF<br>1,020,951   | CHF<br>1,200,096  | CHF   | CHI<br>26,453,27  |
| <u>5,132,912</u><br>29,256,651   | <u>5,262,478</u><br>23,656,535  | 4,699,994<br>948,457<br>58,221,446  | 1,020,951  | 1,200,096   |   | 26,453,27   |
| 29,256,651   | 23,656,535  | 948,457<br>58,221,446   | -  |   | 9,136,844   |   |
| 29,256,651   | 23,656,535  | 948,457<br>58,221,446   | -  |   | 9,136,844   |   |
|  |   | 58,221,446  | 37.995.926   |   |   | 040 45  |
|  |   | 58,221,446  | 37,995,926   |   | -   | 0.40.45   |
|  |   | 58,221,446  | -<br>37.995.926  |   | -   | 0.40.40   |
|  |   | -   | 37,995,926   |   |   | 948,45  |
| 588,385,286  | 231,111,985   |   |  | 3,548,507   | 2,181,596   | 154,860,66  |
|  |   | 132,714,365   | 9,952,775  | 4,292,240   | 27,249,142  | 993,705,79  |
|  | 2,925,293   | 94,044,067  |  |   |   | 96,969,36   |
| 9,639,204  | 70,414,252  | 10,770,564  |  |   | 8,919,055   | 99,743,07   |
| 11,306,363   | 6,599,949   |   | 9,217,572  | 3,395,606   | 5,485,313   | 36,004,80   |
| 638,587,504  | 334,708,014   | 296,698,899   | 57,166,273   | 11,236,353  | 43,835,106  | 1,382,232,14  |
| 23,847,226   | 8,990,887   | 7,781,907   | 1,168,437  | 1,508,455   | 772,002   | 44,068,91   |
| 662,434,730  | 343,698,901   | 304,480,806   | 58,334,710   | 12,744,808  | 44,607,108  | 1,426,301,06  |
|  |   |   |  |   |   |   |
| 2016   | 2016  | 2016  | 2016   | 2016  | 2016  | 31 Decembe  |
|  |   |   |  |   |   | 201   |
| •  |   |   |  |   | -   | Tot   |
| -  | -   | -   | -  | -   |   | CH  |
| Cili   | Cill  | Cill  | Chir   | Chr   | Chr   | Ci.   |
| 10 280 547   | 1 732 566   | 2 170 694   | 2 /11 991  | 084 406   | 8 029 740   | 35,609,91   |
| 15,200,547   | 1,752,500   | 2,170,004   | 3,411,001  |   | 0,020,740   | 33,003,31   |
|  |   |   |  |   |   |   |
| 26,849,109   | 26,955,293  | 21,516,105  | 37,913,735   | 25,002,292  |   | 138,236,53  |
| 888,994,174  | 209,595,112   | 61,147,892  | 23,128,548   | 3,598,336   | 25,351,442  | 1,211,815,50  |
| +  |   | 1,891,833   | 100,487,703  |   |   | 102,379,53  |
| 54,275,964   | 8,354,526   | 98,394,660  | 9,728,353  | -4  | 7,109,243   | 177,862,74  |
| 103,286,604  | 10,564,697  | 6,197,725   |  | 201   | 17,484,482  | 137,533,5   |
| 7,508,154  | 2   | 4   |  | - 2   | +   | 7,508,15  |
| 1,080,914,005  | 255,469,628   | 189,148,215   | 171,258,339  | 28,600,628  | 49,945,167  | 1,775,335,98  |
| 67,590,299   | 8,217,942   | 3,828,274   | 6,214,380  | 1,607,317   | 4,385,438   | 91,843,65   |
|  |   |   |  |   |   |   |
| 1  | 638,587,504<br>23,847,226<br>662,434,730<br>2016<br>Up to<br>one year<br>CHF<br>19,280,547<br>26,849,109<br>888,994,174<br>54,275,964<br>103,286,604<br>7,508,154 | 638,587,504         334,708,014           23,847,226         8,990,887           662,434,730         343,698,901           2016         2016           Up to<br>one year         2016           CHF         1,732,566           26,849,109         26,955,293           288,994,174         209,595,112           54,275,964         8,354,526           103,286,604         10,564,697           7,508,154         255,469,628 | 638,587,504         334,708,014         296,698,899           23,847,226         8,990,887         7,781,907           662,434,730         343,698,901         304,480,806           2016         2016         2016           Up to<br>one year<br>CHF         2016         2016           19,280,547         1,732,566         2,170,684           26,849,109         26,955,293         21,516,105           885,994,174         209,595,112         61,147,892           1,891,833         54,275,964         8,354,526         98,394,660           103,286,604         10,564,697         6,197,725         7,508,154           1,080,914,005         255,469,628         189,148,215         189,148,215 | 638,587,504         334,708,014         296,698,899         57,166,273           23,847,226         8,990,887         7,781,907         1,168,437           662,434,730         343,698,901         304,480,806         58,334,710           2016         2016         2016         From two to           Up to<br>one year         CHF         2016         From two to           CHF         CHF         CHF         CHF           19,280,547         1,732,566         2,170,684         3,411,881           26,849,109         26,955,293         21,516,105         37,913,735           885,994,174         209,595,112         61,147,892         23,128,548           103,286,604         10,564,697         6,197,725         97,28,353           7,508,154         10,564,697         6,197,725         97,28,353           7,080,914,005         255,469,628         189,148,215         171,258,339 | 638,587,504         334,708,014         296,698,899         57,166,273         11,236,353           23,847,226         8,990,887         7,781,907         1,168,437         1,508,455           662,434,730         343,698,901         304,480,806         58,334,710         12,744,808           2016         2016         From two to<br>two years         2016         2016         From three to<br>four years         2016           CHF         CHF         CHF         CHF         CHF         CHF         21,516,105         37,913,735         25,002,292           286,849,109         26,955,293         21,516,105         37,913,735         25,002,292         3,598,336           103,286,604         10,564,697         6,197,725         9,728,353         3,598,336         3,598,336           10,2080,914,005         255,469,628         189,148,215         171,258,339         28,600,628 | 638,587,504         334,708,014         296,698,899         57,166,273         11,236,353         43,835,106           23,847,226         8,990,887         7,781,907         1,168,437         1,508,455         772,002           662,434,730         343,698,901         304,480,806         58,334,710         12,744,808         44,607,108           2016         2016         From one to<br>two years         2016         From three to<br>four years         2016         From four to<br>five years         2016           19,280,547         1,732,566         2,170,684         3,411,881         984,496         8,029,740           26.849,109         26,955,293         21,516,105         37,913,735         25,002,292         25,351,442           103,286,604         10,564,697         6,197,725         98,394,660         9,728,353         7,109,243           103,286,604         10,564,697         6,197,725         171,258,339         28,600,628         49,945,167 |

Each holder of a fully paid ordinary share is entitled to one vote for each share owned. When and as dividends are declared upon the ordinary share capital of the company, the holders of ordinary shares are entitled to share equally, share for share, in such dividends. In the event of liquidation of the company, the holders of ordinary shares shall be entitled to receive any of the remaining assets of the company after the distribution of all prefered amounts. The amount distributed will be in proportion to the number of equity shares held by the shareholders.

#### 11 Fair value of financial instruments

All assets and liabilities for which fair value is measured or disclosed in the financial statements are categorised within the fair value hierarchy, described as follows, based on the lowest level input that is significant to the fair value measurement as a whole:

- Level 1: Quoted (unadjusted) market prices in active markets for identical assets or liabilities.

- Level 2: Valuation techniques for which the lowest level input that is significant to the fair value measurement is directly or indirectly observable.

- Level 3: Valuation techniques for which the lowest level input that is significant to the fair value measurement is unobservable.

#### 11 Fair value of financial instruments (continued)

For the purpose of fair value disclosures, the company has determined classes of assets and liabilities on the basis of the nature, characteristics and risks of the asset or liability and the level of the fair value hierarchy as explained above.

| Total           | Level 1  | Level 2  | Level 3  |
|-----------------|--|--|--|
| CHF             | CHF  | CHF  | CHF  |
|                 |  |  |  |
|                 |  |  |  |
| 1,483,779,361   | 1,477,929,046  | 5,850,315  | -  |
| 26,453,275      | -  | 26,453,275   | -  |
|                 |  |  |  |
| (44,068,914)    |  | (44,068,914)   | -  |
| (1,382,232,149) | -  | (1,382,232,149)  | -  |
|                 |  |  |  |
|                 |  |  |  |
| 1,894,265,596   | 1,894,265,596  |  |  |
| 35,609,914      |  | 35,609,914   |  |
|                 |  |  |  |
| (91,843,650)    |  | (91,843,650)   |  |
| (1,775,335,982) | -  | (1,775,335,982)  |  |
|                 | CHF<br>1,483,779,361<br>26,453,275<br>(44,068,914)<br>(1,382,232,149)<br>1,894,265,596<br>35,609,914<br>(91,843,650) | CHF CHF<br>1,483,779,361 1,477,929,046<br>26,453,275 -<br>(44,068,914)<br>(1,382,232,149) -<br>1,894,265,596 1,894,265,596<br>35,609,914<br>(91,843,650) - | CHF         CHF         CHF           1,483,779,361         1,477,929,046         5,850,315           26,453,275         -         26,453,275           (44,068,914)         -         (44,068,914)           (1,382,232,149)         -         (1,382,232,149)           1,894,265,596         1,894,265,596         35,609,914           (91,843,650)         -         (91,843,650) |

There were no changes to valuation techniques or transfers between Levels 1, 2 and 3 during the year.

Where there are quoted prices in an active market for identical assets or liabilities, a security is included in Level 1. Where values are based on other inputs other than quoted prices included within Level 1, such as quoted prices for similar assets or liabilities in active markets, or quoted prices for identical assets or liabilities in markets that are not active, they are included in Level 2.

The fair values of OTC options are calculated using an option pricing model based on direct market data, e.g., bond or share prices, and indirect market data, e.g., interest, implied volatility and dividend estimates. The fair value of such OTC options is included within Level 2.

The fair values of interest rate swaps are calculated based on quotes from counterparties to the agreements which are corroborated by market data. The fair value of such interest rate swaps is included within Level 2.

The fair values of structured products, which are set up as combinations of the components of the respective structured product, are calculated based on the sum of the valuations of its components. As the fair values of the components of the structured products are either Level 1 (securities) or Level 2 (term deposits with banks, OTC options and interest rate swaps), the fair value of such structured products is included within Level 2.

#### 12 Risk management and policies

The company's financial instruments comprise of term deposits, money market assets, securities, options and various types of derivative instruments, cash and liquid resources and various other items that arise directly from its operations.

#### 12.1 Risk management framework

The directors have included information in the notes to the financial statements which discloses the market risk sensitivity analysis which is performed by the parent company, Zürcher Kantonalbank, and is appropriate to the nature of the company's business and the market risks to which it is subject, in accordance with the requirements of IFRS 7. The company's directors and management use sensitivity analysis as described below in this report to evaluate the nature and extent of risks arising from financial instruments.

The main risks arising from the company's financial instruments are credit risk, liquidity risk and market risk. The directors regularly review and agree policies for managing each of these risks and they are summarised below. The risk management guidelines for the company set out guidelines for identifying, managing and monitoring default, liquidity and market risks to which the company is exposed.

#### 12 Risk management and policies (continued)

12.1 Risk management framework (continued)

- In particular, the document:
- i) defines the rules and procedures for managing credit, liquidity and market risks;
- ii) sets out the applicable long-term risk policies of the company and Zürcher Kantonalbank;
- iii) defines the entity to which duties and responsibilities in relation to risk management are assigned;
- iv) defines the entity to which duties and responsibilities in relation to risk monitoring are assigned; and

v) provides an overview of relevant powers and responsibilities.

The general guidelines are:

i) credit, liquidity and market risks shall be managed in accordance with the rules and policies laid down in the guidelines on risk management for Zürcher Kantonalbank, and its subsidiaries (collectively, the "group") risk policies;

ii) subject to the constraints of the applicable group risk policies, the company shall define appropriate limits with a view to mitigating default and market risks;

iii) Zürcher Kantonalbank shall be responsible for managing risks subject to approved limits;

iv) Zürcher Kantonalbank shall be responsible for quantifying risk, preparing reports on risk monitoring conducted, and reporting on risks; and

v) the directors of the company shall be entitled to limit the level of risk exposure and the list of approved products at any time.

The management of risks within the limits in notes 12.1 a), b), c), and d), have been delegated to Zürcher Kantonalbank.

With regard to risk monitoring, the chief executive officer of the company is responsible for: i) monitoring liquidity and solvency of the company and informing the directors of any issues arising or exceptional events;

ii) monitoring adherence to risk limits and informing the directors in the event of a limit breach;

iii) defining actions to be taken in case of limit breaches;

iv) informing the directors of actions defined; and

v) documenting limits, limit breaches and actions defined.

Risk measurement, preparation of risk monitoring reports and risk reporting have been delegated to Zürcher Kantonalbank. To ensure a constant monitoring of risk by the company's management, a risk report is prepared by Zürcher Kantonalbank on a daily basis and is sent to the management of the company.

The following sections detail the limit types, methods used for exposure calculations and exposures as at the year end.

### 12.1 a) Sensitivity limits ("Delta limits")

The directors of the company define sensitivity limits for default risks, interest rate and foreign currency, which are calculated on a daily or weekly basis.

## Default risk sensitivity limits: Credit risk money markets

Credit risk money markets relates to the daily change of synthetic portfolio hedging, i.e. a portfolio of credit default swaps (CDS) with reference to named money market counterparties. The sensitivity limit defines the maximum profit and loss daily change limit permitted on the theoretical hedging costs on the company's treasury management portfolio. The credit risk money markets limit of +/- CHF 1,000,000 means that the current credit delta exposure on money market investments must not exceed CHF 1,000,000 per basis point.

|  | Limit             | Limit status | Value 31.12.17 | Value 31.12.16 |
|--|-------------------|--------------|----------------|----------------|
|  |                   |              | CHF            | CHF            |
|  | +/- CHF 1,000,000 | ok           |                |                |
|  |                   |              |                |                |

Additional information on money market exposure is shown in note 12.2 c)

#### Default risk sensitivity limits: Credit risk others

Credit risk others refer to bonds and reverse repurchase agreements, and is related to daily changes of the Z-Spread. The sensitivity limit defines the maximum profit and loss daily change limit permitted on the theoretical hedging costs on the company's treasury management portfolio. The directors have defined a maximum credit spread sensitivity (DV01) per issuer with a view to mitigating the credit risk associated with securities. DV01 is calculated as the sensitivity of a contract to a 1 basis point fluctuation in the credit spread curve and the DV01 limit is set at CHF 35,000 per issuer. As at 31 December 2017, the potential loss per issuer was within the prescribed limit.

Furthermore, a maximum 1 day upper loss limit of CHF 5,000,000 has also been set by the directors in respect of bonds receivable and reverse repo agreements as they believe that this level allows sufficient returns to be generated on the company's securities without exposing it to excessive credit risk.

|                        | Limit          | Limit status |
|------------------------|----------------|--------------|
| DV01 per issuer        | +/- CHF 35,000 | ok           |
| 1 day upper loss limit | CHF 5,000,000  | ok           |
|                        |                |              |
|                        |                | 1            |

Additional information on credit risk others is shown in note 12.2 b) and 12.2 c)

#### 12 Risk management and policies (continued)

12.1 a) Sensitivity limits ("Delta limits") (continued)

| Interest rate sensitivity limit per basis point (Rho exposure)                       |               |                  |                |
|--|---------------|------------------|----------------|
| An interest rate sensitivity limit of +/- CHF 100,000 means that the current Rho exp | osure must n  | ot exceed CHF    | - 100.000 per  |
| basis point. Rho is the derivative of the option value with respect to the ris       |               |                  |                |
| outstanding term, and is expressed as the amount of money, per share of the unde     |               |                  |                |
| gain or lose as the risk free interest rate rises or falls by one basis point.       | ing, that t   |                  | e option mil   |
| Limit  | Limit status  | Value 31.12.17   | Value 31.12.16 |
|  |               | CHF              | CHF            |
| +/- CHF 100,000  | ok            | (38,238)         | (26,336)       |
| Additional information on interest rate risk is shown in note 12.4 a)                |               |                  |                |
| Foreign exchange sensitivity limit per CHF 0.01                                      |               |                  |                |
| The foreign exchange sensitivity limit of +/- CHF 1,000,000 means that the effect o  | of our foreig | n exchange ex    | (posure must   |
| not cause a profit or loss of greater than CHF 1,000,000. The calculation of foreig  | n exchange :  | sensitivity is p | erformed by    |
| Zürcher Kantonalbank (Risk Control Department).                                      |               |                  |                |
| Limit  | Lingle status | Value 21 12 17   | V-lue 21 12 1  |

| Limit   | Limit status | Value 31.12.17 | Value 31.12.16 |  |  |
|---|--------------|----------------|----------------|--|--|
|   |              | CHF            | CHF            |  |  |
| +/- CHF 1,000,000   | ok           | 614            | 28,642         |  |  |
|   |              |                |                |  |  |
| Additional information on foreign exchange rate risk is shown in note 12.4 b) |              |                |                |  |  |

The net financial instrument foreign currency exposure as at 31 December 2017, as measured by a derivative function of the theoretical profit or loss arising from a shift in the value of any given currency against all other currencies held, was as follows:

|        | in local  |          |
|--------|-----------|----------|
|        | currency  | in CHF   |
|        | (46,387)  | (54,525) |
|        | (61,591)  | (60,870) |
|        | 9,167     | 12,140   |
|        | 78,698    | 60,394   |
|        | 57,193    | 499      |
|        | 60,784    | 42,439   |
|        | (6,116)   | (730)    |
|        | (7,924)   | (6,184)  |
|        | 85,789    | 10,240   |
|        | 23,419    | 1,879    |
|        | 1,763,252 | 30,150   |
|        | 5,903     | 932      |
|        | 3,594     | 931      |
|        | (24,397)  | (3,679)  |
|        | 19,348    | 14,279   |
|        | 106,973   | 13,533   |
| F FX e | exposure  | 61,428   |

#### 12.1 b) Entity volume limits for funds invested with third parties

The directors define maximum volumes for each counterparty with a view to mitigating the risk of default on investments with third parties (money market investments and reverse repurchase agreements). The directors may lower the limits defined for the company at any time.

Exposure of term deposits and money market assets with corresponding counterparty limits are disclosed in table 12.2 a).

#### 12.1 c) Entity volume limits and counterparty limit monitoring for securities investments

The directors have defined minimum credit ratings and maximum permitted volumes per issuer for each rating category with a view to mitigating the default risk associated with securities (bonds, Pfandbriefe, etc).

Volume limits per counterparty must not exceed Group policy. Counterparty volume limits for securities investments are:

|   | Limit CHF     | Limit Status |
|---|---------------|--------------|
| Total Limit                                 | 2,500,000,000 | ok           |
| Counterparty Limits per issuer AAA          | 100,000,000   | ok           |
| Counterparty Limits per issuer AA           | 50,000,000    | ok           |
| Counterparty Limits per issuer A            | 30,000,000    | ok           |
| Counterparty Limits per issuer A- and lower |               | ok           |

Additional information on the company's exposure is shown in note 12.2 b)

#### 12 Risk management and policies (continued)

#### 12.1 d) Credit spread risk

As at 31 December 2017, the company's treasury management portfolio was subject to an aggregate credit spread sensitivity of CHF 157,447 (2016: CHF 223,708) for each one basis point change in the difference in yields on treasury and non-treasury securities.

#### 12.2 Credit risk

Credit risk is the risk that a borrower will default on any type of debt by failing to make required payments. The risk is primarily that of the lender and includes lost principal and interest, disruption to cashflows, and increased collection costs.

Zürcher Kantonalbank manages counterparty credit risk at a group level to optimise the use of credit availability and to avoid excessive risk concentration. The company's policy is that all credit facilities are entered into with group approved banks with an appropriate credit rating. The Standard & Poor's long term deposits ratings at 31 December 2017 are shown in the note below.

With respect to credit risk arising from the financial assets of the company, which comprise of term deposits, money market assets, reverse repurchase agreements, securities, debtors and various types of derivative instruments, the company's exposure to credit risk arises from default of the counterparty, with a maximum exposure equal to the carrying amount of these instruments.

The company's management team and directors receive regular reports on any credit exposure.

| 12.2 a) Term deposits and money market assets   | Total internal limit | Deposits   | Rating   | Allocation  |
|---|----------------------|--|--|---|
|   | CHF                  | CHF  |  |   |
| As at 31 December 2017:   |                      |  |  |   |
| Term deposits   |                      |  | AAA  | 0.00%   |
| Term deposits   | 225,000,000          | -  | AA   | 0.00%   |
| Term deposits   | 625,000,000          | -  | А  | 0.00%   |
| Term deposits   |                      |  | BBB  | 0.00%   |
| Term deposits   | +                    |  | No rating  | 0.00%   |
|   | 850,000,000          |  |  | 0.00%   |
| As at 31 December 2016:   |                      |  |  |   |
| Term deposits   | -                    | ~  | AAA  | 0.00%   |
| Term deposits   | 150,000,000          |  | AA   | 0.00%   |
| Term deposits   | 750,000,000          |  | А  | 0.00%   |
| Term deposits   | 50,000,000           | 20,000,000   | BBB  | 98.29%  |
| Term deposits   | 15,000,000           | 347,798  | No rating  | 1.71%   |
|   | 965,000.000          | 20.347 798   |  | 100.00%   |
|   |                      |  |  |   |
| 12.2 b) Securities held for trading - Guernsey treasury man   | agement portfolio    | Fair value   | Rating   | Allocation  |
|   | agement portfolio    | Fair value<br>CHF  | Rating   | Allocation  |
| As at 31 December 2017:   | agement portfolio    |  | _  | Allocation  |
| As at 31 December 2017:<br>Bonds receivable   | agement portfolio    | CHF<br>116,045,906   | Rating   | 8.34%   |
| As at 31 December 2017:<br>Bonds receivable<br>Bonds receivable   | agement portfolio    | CHF<br>116,045,906<br>333,950,878  | _  | 8.34%<br>23.99%   |
| As at 31 December 2017:<br>Bonds receivable<br>Bonds receivable<br>Bonds receivable   | agement portfolio    | CHF<br>116,045,906   | ААА<br>АА<br>А                                     | 8.34%<br>23.99%<br>67.25%   |
| As at 31 December 2017:<br>Bonds receivable<br>Bonds receivable   | agement portfolio    | CHF<br>116,045,906<br>333,950,878  | ААА<br>АА  | 8.34%<br>23.99%   |
| As at 31 December 2017:<br>Bonds receivable<br>Bonds receivable<br>Bonds receivable   | agement portfolio    | CHF<br>116,045,906<br>333,950,878  | ААА<br>АА<br>А                                     | 8.34%<br>23.99%<br>67.25%   |
| As at 31 December 2017:<br>Bonds receivable<br>Bonds receivable<br>Bonds receivable   | agement portfolio    | CHF<br>116,045,906<br>333,950,878<br>936,212,948   | AAA<br>AA<br>A<br>BBB                              | 8.34%<br>23.99%<br>67.25%<br>0.00%  |
| As at 31 December 2017:<br>Bonds receivable<br>Bonds receivable<br>Bonds receivable   | agement portfolio    | CHF<br>116,045,906<br>333,950,878<br>936,212,948<br>-<br>5,850,315   | AAA<br>AA<br>A<br>BBB                              | 8.34%<br>23.99%<br>67.25%<br>0.00%<br>0.42%   |
| As at 31 December 2017:<br>Bonds receivable<br>Bonds receivable<br>Bonds receivable<br>Bonds receivable   | agement portfolio    | CHF<br>116,045,906<br>333,950,878<br>936,212,948<br>5,850,315<br>1,392,060,047   | AAA<br>AA<br>A<br>BBB                              | 8.34%<br>23.99%<br>67.25%<br>0.00%<br>0.42%<br>100.00%  |
| As at 31 December 2017:<br>Bonds receivable<br>Bonds receivable<br>Bonds receivable<br>Bonds receivable<br>As at 31 December 2016:  | agement portfolio    | CHF<br>116,045,906<br>333,950,878<br>936,212,948<br>-<br>5,850,315   | AAA<br>AA<br>BBB<br>No rating                      | 8.34%<br>23.99%<br>67.25%<br>0.00%<br>0.42%   |
| As at 31 December 2017:<br>Bonds receivable<br>Bonds receivable<br>Bonds receivable<br>Bonds receivable<br>As at 31 December 2016:<br>Bonds receivable  | agement portfolio    | CHF<br>116,045,906<br>333,950,878<br>936,212,948<br>-<br>5,850,315<br>1,392,060,047<br>342,318,507                                       | AAA<br>AA<br>BBB<br>No rating<br>AAA               | 8.34%<br>23.99%<br>67.25%<br>0.00%<br>0.42%<br>100.00%  |
| As at 31 December 2017:<br>Bonds receivable<br>Bonds receivable<br>Bonds receivable<br>Bonds receivable<br>As at 31 December 2016:<br>Bonds receivable<br>Bonds receivable                                  | agement portfolio    | CHF<br>116,045,906<br>333,950,878<br>936,212,948<br>-<br>5,850,315<br>1,392,060,047<br>342,318,507<br>609,912,111                        | AAA<br>AA<br>BBB<br>No rating<br>AAA<br>AA         | 8.34%<br>23.99%<br>67.25%<br>0.00%<br>0.42%<br>100.00%<br>19.55%<br>34.85%                    |
| As at 31 December 2017:<br>Bonds receivable<br>Bonds receivable<br>Bonds receivable<br>Bonds receivable<br>Bonds receivable<br>Bonds receivable<br>Bonds receivable<br>Bonds receivable                     | agement portfolio    | CHF<br>116,045,906<br>333,950,878<br>936,212,948<br>5,850,315<br>1,392,060,047<br>342,318,507<br>609,912,111<br>754,351,019              | AAA<br>AA<br>BBB<br>No rating<br>AAA<br>AA<br>A    | 8.34%<br>23.99%<br>67.25%<br>0.00%<br>0.42%<br>100.00%<br>19.55%<br>34.85%<br>43.09%          |
| As at 31 December 2017:<br>Bonds receivable<br>Bonds receivable<br>Bonds receivable<br>Bonds receivable<br>Bonds receivable<br>Bonds receivable<br>Bonds receivable<br>Bonds receivable<br>Bonds receivable | agement portfolio    | CHF<br>116,045,906<br>333,950,878<br>936,212,948<br>5,850,315<br>1,392,060,047<br>342,318,507<br>609,912,111<br>754,351,019<br>1,458,120 | AAA<br>AA<br>BBB<br>No rating<br>AAA<br>AA<br>ABBB | 8.34%<br>23.99%<br>67.25%<br>0.00%<br>0.42%<br>100.00%<br>19.55%<br>34.85%<br>43.09%<br>0.08% |

The directors have approved temporary exceptions to the counterparty limit policy in respect of certain securities held for trading as at 31 December 2017 which are issued by counterparties rated A- and lower. It is the opinion of the directors that these securities can continue to be held until their maturity or until market conditions allow for their disposal.

#### 12 Risk management and policies (continued)

| 12.2 c) Securities held for trading - as direct hedging instruments | Fair value  | Rating    | Allocation |
|---|-------------|-----------|------------|
|   | CHF         |           |            |
| As at 31 December 2017:   |             |           |            |
| Bonds receivable  | 6,398,659   | AAA       | 6.98%      |
| Bonds receivable  | 1,419,816   | AA        | 1.55%      |
| Bonds receivable  | 7,869,706   | Α         | 8.58%      |
| Bonds receivable  | 33,204,330  | BBB       | 36.20%     |
| Bonds receivable  | 31,737,489  | BB        | 34.60%     |
| Bonds receivable  | 3,360,734   | В         | 3.67%      |
| Bonds receivable  | 7,632,456   | No rating | B.32%      |
| Stocks held   | 22,788      | AA        | 0.02%      |
| Stocks held   | 36,456      | BBB       | 0.04%      |
| Stocks held   | 36,882      | No rating | 0.04%      |
|   |             |           |            |
|   | 91,719,314  |           | 100.00%    |
| As at 31 December 2016:   |             |           |            |
| Bonds receivable  | 13,072,261  | AAA       | 9.09%      |
| Bonds receivable  | 5,037,561   | AA        | 3.50%      |
| Bonds receivable  | 17,994,720  | Α         | 12.52%     |
| Bonds receivable  | 52,948,387  | BBB       | 36.83%     |
| Bonds receivable  | 49,008,397  | 88        | 34 09%     |
| Bonds receivable  | 1,158,199   | 8         | 0.81%      |
| Bonds receivable  | 4,393,399   | No rating | 3.06%      |
| Stocks held   | 163,640     | No rating | 0.11%      |
|   |             | 5         |            |
|   | 143,776,564 |           | 100,00%    |

The securities listed above are held as direct hedging instruments for risk management purposes and are not subject to the limits shown in note 12.1 c).

#### 12.3 Liquidity profile

The liquidity profile is an analysis of the company's ability to meet its commitments as they become due.

There is no direct matching of the maturity profiles of the products with the assets held, however the company's liquidity risk is constantly monitored as an important part of the treasury management process. Liquidity risk management consists of short term (3 months) and long term (3 years) monitoring of cash flows.

The liquidity profile shows a net surplus for the next year, when the treasury management portfolio is classified according to final maturity dates. The securities held in the treasury management portfolio are primarily bonds for which a readily accessiable active market exists and are considered to be held for trading purposes. As such their final maturity dates are not intended to closely match the final maturity profile of financial liabilities held at fair value through the profit or loss.

|   | 2017<br>Up to<br>one year<br>CHF | 2017<br>From one to<br>two years<br>CHF | 2017<br>From two to<br>three years<br>CHF | 2017<br>From three to<br>four years<br>CHF | 2017<br>From four to<br>five years<br>CHF | 2017<br>Five years<br>and over<br>CHF | 31 December<br>2017<br>Total<br>CHF |
|---|----------------------------------|---|---|--|---|---------------------------------------|-------------------------------------|
| Assets  |                                  |   |   |  |   |                                       |                                     |
| Cash, amounts due from banks,<br>money at call<br>Accrued interest receivable and   | 63,461,078                       | -                                       | -   | -  |   | ÷                                     | 63,461,07B                          |
| prepayments<br>Securities held for trading,   | 9,057,267                        | ~                                       |   |  |   |                                       | 9,057,267                           |
| designated at fair value through<br>profit or loss<br>Derivative financial instruments held                               | 778,454,871                      | 468,941,680                             | 142,525,818                               | 38,237,411                                 | 8, 192, 338                               | 47,427,243                            | 1,483,779,361                       |
| at fair value through profit or loss  | 5,132,912                        | 5,262,478                               | 4,699,994                                 | 1,020,951                                  | 1,200,096                                 | 9,136,844                             | 26,453,275                          |
| Liabilities   |                                  |   |   |  |   |                                       |                                     |
| Amounts due to banks  | (51,683,345)                     |   |   | -  |   |                                       | (51,683,345)                        |
| Accrued interest payable and accrued expenses   | (1,798,025)                      | -                                       | -   |  |   |                                       | (1,798,025)                         |
| Derivative financial instruments held<br>at fair value through profit or loss<br>Financial liabilities held at fair value | (23,847,226)                     | (8,990,887)                             | (7,781,907)                               | (1,168,437)                                | (1,508,455)                               | (772,002)                             | (44,068,914)                        |
| through profit or loss  | (638,587,504)                    | (334,708,014)                           | (296,698,899)                             | (57,166,273)                               | (11,236,353)                              | (43,835,106)                          | (1,382,232,149)                     |
| Net Liquidity   | 140, 190, 028                    | 130,505,257                             | (157,254,994)                             | (19,076,348)                               | (3,352,374)                               | 11,956,979                            | 102,968,548                         |

The undiscounted contractual liabilities of the company excluding accrued interest at 31 December 2017 are as follows:

| Financial liabilities held at fair value |             |             |             |              |            |            |               |
|--|-------------|-------------|-------------|--------------|------------|------------|---------------|
| through profit or loss                   | 629,853,873 | 328,963,143 | 300,096,877 | 56, 180, 033 | 11,088,835 | 42,608,620 | 1,368,791,381 |
|  |             |             |             |              |            |            |               |

#### 12 Risk management and policies (continued)

#### 12.3 Liquidity profile (continued)

|  | 2016<br>Up to   | 2016<br>From one to | 2016<br>From two to | 2016<br>From three to | 2016<br>From four to | 2016<br>Five years | 31 December<br>2016 |
|--|-----------------|---------------------|---------------------|-----------------------|----------------------|--------------------|---------------------|
|  | one year        | two years           | three years         | four years            | five years           | and over           | Total               |
|  | CHF             | CHF                 | CHF                 | CHF                   | CHF                  | CHF                | CHF                 |
| Assets                                   |                 |                     |                     |                       |                      |                    |                     |
| Cash, amounts due from banks,            |                 |                     |                     |                       |                      |                    |                     |
| money at call                            | 99,217,256      |                     |                     |                       |                      |                    | 99,217,256          |
| Accrued interest receivable and          |                 |                     |                     |                       |                      |                    |                     |
| prepayments                              | 17,316,266      |                     |                     |                       | -                    |                    | 17,316,266          |
| Securities held for trading,             |                 |                     |                     |                       |                      |                    |                     |
| designated at fair value through         |                 |                     |                     |                       |                      |                    |                     |
| profit or loss                           | 803,836,757     | 722,499,278         | 223,358,947         | 40,813,049            | 45,874,840           | 57,882,725         | 1,894,265,596       |
| Derivative financial instruments held    |                 |                     |                     |                       |                      |                    |                     |
| at fair value through profit or loss     | 19,280,547      | 1,732,566           | 2,170,684           | 3,411,881             | 984,496              | 8,029,740          | 35,609,914          |
| Liabilities                              |                 |                     |                     |                       |                      |                    |                     |
| Amounts due to banks                     | (83,129,520)    |                     |                     |                       |                      |                    | (83,129,520)        |
| Accrued interest payable and accrued     |                 |                     |                     |                       |                      |                    | (00/120/020/        |
| expenses                                 | (2,104,235)     |                     |                     |                       |                      |                    | (2,104,235)         |
| Derivative financial instruments held    | (1)             |                     |                     |                       |                      |                    | (2) 10 1,200)       |
| at fair value through profit or loss     | (67,590,299)    | (8,217,942)         | (3,828,274)         | (6,214,380)           | (1,607,317)          | (4,385,438)        | (91,843,650)        |
| Financial liabilities held at fair value | (               | (-)= - )- )-1       | (-,, ,              | (-,= - ,,=            | (,,,                 | (1,000) 100)       | (0,1)0,0000)        |
| through profit or loss                   | (1,080,914,005) | (255,469,628)       | (189,148,215)       | (171,258,339)         | (28,600,628)         | (49,945,167)       | (1,775,335,982)     |
|  |                 |                     |                     |                       |                      |                    |                     |
| Net Liquidity                            | (294,087,233)   | 460,544,274         | 32,553,142          | (133,247,789)         | 16,651,391           | 11,581,860         | 93,995,645          |
|  |                 |                     |                     |                       |                      |                    |                     |

The undiscounted contractual liabilities of the company excluding accrued interest at 31 December 2016 are as follows:

Financial liabilities held at fair value through profit or loss

| rough profit or loss | 980,546,296 | 280,899,190 | 187,242,587 | 172,910,439 | 119,356,262 | 49,874,369 | 1,790,829,143 |
|----------------------|-------------|-------------|-------------|-------------|-------------|------------|---------------|
|                      |             |             |             |             |             |            |               |

#### 12.4 Market risk

Market risk is the risk that the fair value or future cash flows of financial instruments will fluctuate due to changes in market variables such as interest rates and foreign exchange rates.

#### 12.4 a) Interest rate risk

Interest rate risk is the risk that an investment's value will change due to a change in the absolute level of interest rates, in the spread between two rates, in the shape of the yield curve or in any other interest rate relationship.

The assets and liabilities of the company are exposed to interest rate risk, which is summarised in the table below. At 31 December 2017, the amount of interest rate risk exposure to the assets of the company was 93.05% (2016: 92.77%).

|  |               |               |                    | No net interest |
|--|---------------|---------------|--------------------|-----------------|
|  | Total         | Variable rate | Fixed rate         | rate risk       |
| The interest rate profile of the company at 31 December 2017:                | CHF           | CHF           | CHF                | CHF             |
| Assets   |               |               |                    |                 |
| Cash, amounts due from banks, money at call                                  | 63,461,078    | 672,059       |                    | 62,789,019      |
| Accrued interest receivable and prepayments                                  | 9,057,267     |               |                    | 9,057,267       |
| Securities held for trading, designated at fair value through profit or loss | 1,483,779,361 | 259,826,963   | 1,212,207,268      | 11,745,130      |
| Derivative financial instruments held at fair value through profit or loss   | 26,453,275    | 11,484,485    | -                  | 14,968,790      |
| Total Assets   | 1,582,750,981 | 271,983,507   | 1,212,207,268      | 98,560,206      |
| Liabilities and Shareholder's funds  |               |               |                    |                 |
| Amounts due to banks   | 51,683,345    | 4             | -                  | 51,683,341      |
| Accrued interest payable and accrued expenses                                | 1,798,025     |               |                    | 1,798,025       |
| Derivative financial instruments held at fair value through profit or loss   | 44,068,914    | 11,919,036    | -                  | 32,149,878      |
| Financial liabilities held at fair value through profit or loss              | 1,382,232,149 | **            | -                  | 1,382,232,149   |
| Share capital  | 1,000,000     | -             |                    | 1,000,000       |
| Retained earnings  | 101,968,548   | -             | ( ) ( <del>)</del> | 101,968,548     |
| Total Liabilities and Shareholder's Funds                                    | 1,582,750,981 | 11,919,040    |                    | 1,570,831,941   |

#### 12 Risk management and policies (continued)

| 12.4 a) Interest rate risk (continued)                                       |               |               |               | No net interest |
|--|---------------|---------------|---------------|-----------------|
|  | Total         | Variable rate | Fixed rate    | rate risk       |
| The interest rate profile of the company at 31 December 2016:                | CHF           | CHF           | CHF           | CHF             |
| Assets   |               |               |               |                 |
| Cash, amounts due from banks, money at call                                  | 99,217,256    | 20,347,798    | -             | 78,869,458      |
| Accrued interest receivable and prepayments                                  | 17,316,266    | -             | -             | 17,316,266      |
| Securities held for trading, designated at fair value through profit or loss | 1,894,265,596 | 262,365,736   | 1,615,724,593 | 16, 175, 267    |
| Derivative financial instruments held at fair value through profit or loss   | 35,609,914    | 17,712,840    | *             | 17,897,074      |
| Total Assets   | 2,046,409,032 | 300,426,374   | 1,615,724,593 | 130,258,065     |
| Liabilities and Shareholder's funds  |               |               |               |                 |
| Amounts due to banks   | 83,129,520    |               |               | 83,129,520      |
| Accrued interest payable and accrued expenses                                | 2,104,235     |               | -             | 2,104,235       |
| Derivative financial instruments held at fair value through profit or loss   | 91,843,650    | 19,436,582    |               | 72,407,068      |
| Financial liabilities held at fair value through profit or loss              | 1,775,335,982 | -             |               | 1,775,335,982   |
| Share capital  | 1,000,000     |               |               | 1,000,000       |
| Retained earnings  | 92,995,645    |               |               | 92,995,645      |
| Total Liabilities and Shareholder's Funds                                    | 2,046,409,032 | 19,436,582    | -             | 2,026,972,450   |

#### 12.4 b) Foreign exchange risk

Foreign exchange risk is the risk that exists when a financial transaction is denominated in a currency other than that of the base currency of the company.

The company's foreign exchange exposure arises from the issuance of the company's products. The company does not enter into foreign exchange transactions for speculative purposes.

## Currency profile of the company as at 31 December 2017:

| Currency profile of the company as at 31 December 20   | 17:           |              |             |               | Australian |            |
|--|---------------|--------------|-------------|---------------|------------|------------|
|  | Total         | Swiss Francs | Euro        | US Doilar     | Dollar     | Other      |
|  | CHF           | CHF          | CHF         | CHF           | CHF        | CHF        |
| Assets   |               |              |             |               |            |            |
| Cash, amounts due from banks, money at call  | 63,461,078    | 58,033,181   |             | 403,157       |            | 5,024,740  |
| Accrued interest receivable and prepayments  | 9,057,267     | 5,227,626    | 2,177,518   | 949,003       | 109,824    | 593,296    |
| Securities held for trading, designated at fair value  |               |              |             |               |            |            |
| through profit or loss   | 1,483,779,361 | 898,506,088  | 388,304,826 | 170,421,310   | 3,146,568  | 23,400,569 |
| Derivative financial instruments held at fair value  |               |              |             |               |            |            |
| through profit or loss   | 26,453,275    | 19,310,860   | 4,955,460   | 1,969,101     | 65,536     | 152,318    |
| <b>T</b> , 14 ,  | 1 200 220 000 |              |             |               |            |            |
| Total Assets   | 1,582,750,981 | 981,077,755  | 395,437,804 | 173,742,571   | 3,321,928  | 29,170,923 |
|  | 100_00%       | 61.99%       | 24,98%      | 10.97%        | 0.21%      | 1.84%      |
| Liabilities  |               |              |             |               |            |            |
| Amounts due to banks   | 51,683,345    | 17,100,891   | 33,653,143  | 7             | 421,566    | 507,745    |
| Accrued interest payable and accrued expenses<br>Derivative financial instruments held at fair value | 1,798,025     | 1,254,821    | 260,421     | 4,927         | -          | 277,856    |
| through profit or loss   | 44,068,914    | 27,375,613   | 11,783,834  | 4,530,158     |            | 379,309    |
| Financial liabilities held at fair value through profit or loss                                      | 1,382,232,149 | 840,665,292  | 350,325,269 | 181, 185, 491 | 1,966,906  | 8,089,191  |
| Total Liabilities  | 1,479,782,433 | 886,396,617  | 396 022 667 | 185,720,576   | 2,388,472  | 9,254,101  |
|  | 100.00%       | 59.90%       | 26.76%      | 12.55%        | 0.16%      | 0.63%      |

#### 12 Risk management and policies (continued)

12.4 b) Foreign exchange risk (continued)

| Currency | profile of t | he compan | v as at 31 | December | 2016: |
|----------|--------------|-----------|------------|----------|-------|

| Currency profile of the company as at 31 December 2  | 016:            |                 |               |                 | Australian  |                     |
|--|-----------------|-----------------|---------------|-----------------|-------------|---------------------|
|  | Total           | Swiss Francs    | Euro          | US Dollar       | Dollar      | Other               |
| Assets   | CHF             | CHF             | CHF           | CHF             | CHF         | CHF                 |
| Cash, amounts due from banks, money at call  | 99,217,256      | 92,069,334      | 14            | 1               | 2,205,551   | 4,942,371           |
| Accrued interest receivable and prepayments  | 17,316,266      | 9,290,518       | 5,727,690     | 1,490,684       |             | 807,374             |
| Securities held for trading, designated at fair value  |                 |                 |               |                 |             |                     |
| through profit or loss   | 1,894,265,596   | 1,111,768,467   | 455,787,166   | 289,405,486     | 5,664,710   | 31, <b>6</b> 39,767 |
| Derivative financial instruments held at fair value  |                 |                 |               |                 |             |                     |
| through profit or loss   | 35,609,914      | 23,866,889      | 9,211,458     | 1,843,394       | 65,927      | 622,246             |
|  |                 |                 |               |                 |             |                     |
| Total Assets   | 2,046,409,032   | 1,236,995,208   | 470,726,314   | 292,739,564     | 7,936,188   | 38,011,758          |
|  |                 |                 |               |                 |             |                     |
|  | 100.00%         | 60.45%          | 23.00%        | 14.30%          | 0.39%       | 1.86%               |
|  |                 |                 |               |                 |             |                     |
|  |                 |                 |               |                 |             |                     |
| Liabilities  |                 |                 |               |                 |             |                     |
| Amounts due to banks   | (00 400 500)    |                 |               |                 |             | (#== d= -)          |
|  | (83, 129, 520)  | (11,092,372)    | (21,629,755)  | (49,853,817)    | -           | (553,576)           |
| Accrued interest payable and accrued expenses<br>Derivative financial instruments held at fair value | (2,102,928)     | (1,348,719)     | (502,854)     | (9,110)         | -           | (242,245)           |
| through profit or loss   | (91,843,650)    | (62,073,162)    | (22,276,084)  | (7,414,029)     |             | (80,375)            |
| Financial liabilities held at fair value through profit or   |                 | (02,075,102)    | (22,270,004)  | (7,414,025)     |             | (80,575)            |
| loss   | (1,775,335,982) | (1.101.585.946) | (410,108,464) | (248,856,534)   | (6,706,466) | (8,078,572)         |
|  | ·····           | (.,             | (,,,,         | (=,,            | (-,,,       | (0,000,0,000,0,0    |
| Total Liabilities  | (1,952,412,080) | (1,176,100,199) | (454,517,157) | (306, 133, 490) | (6,706,466) | (8,954,768)         |
|  |                 |                 |               |                 |             |                     |
|  | 100.00%         | 69.78%          | 17.49%        | 11.81%          | 0.46%       | 0.46%               |
|  |                 |                 |               |                 |             |                     |

#### 12.5 Mitigation of risk

As part of its overall risk management, Zürcher Kantonalbank uses derivatives and other financial instruments to manage exposures resulting from changes in foreign currency and interest rates, credit risks and equity risks.

#### 13 Capital management

The company considers its capital to comprise its share capital and retained earnings which amounted CHF 102,968,548 as at 31 December 2017 (2016: CHF 93,995,645). The company's capital management objectives are to achieve consistent returns while safeguarding capital and to maintain sufficient liquidity to meet the expenses of the company and to meet its liabilities as they arise.

To achieve the above objectives, the company invests in term deposits with group approved banks and bonds with an appropriate credit rating (see note 12).

The company is not subject to externally imposed capital requirements and has no restrictions on the issue or repurchase of ordinary shares.

#### 14 Related party disclosures

#### Parent and ultimate controlling party

The immediate and ultimate parent undertaking is Zürcher Kantonalbank, a company incorporated in Switzerland.

#### Transactions with related parties

The following table provides the total amount of transactions that have been entered into with related parties for the relevant financial year:

|  |      | Income      | Expenses    | Due to        | Due from      |
|--|------|-------------|-------------|---------------|---------------|
|  |      | Year ended  | Year ended  | related party | related party |
|  |      | 31 December | 31 December | 31 December   | 31 December   |
|  |      | CHF         | CHF         | CHF           | CHF           |
| Parent:                                    |      |             |             |               |               |
| Zürcher Kantonalbank                       | 2017 | 19,795,283  | 11,768,708  | 1,515,241     |               |
|  | 2016 | 19,225,032  | 11,905,417  | 1,851,573     |               |
| Bank accounts held with parent company     | 2017 | 1.2         |             | 51,683,345    | 62,789,019    |
|  | 2016 | -           | •           | 83,129,520    | 78,869,457    |
| Derivative contracts with parent company   | 2017 |             | -           | 44,068,914    | 26,453,275    |
|  | 2016 | +           | -           | 91,843,650    | 35,609,914    |
| Structured products held by parent company | 2017 |             | -           | 212,823,251   | 4             |
|  | 2016 | 1.1         |             | 256,428,466   | -             |

| 14 Related party disclosures (continued) |      | Income<br>Year ended<br>31 December<br>CHF | Expenses<br>Year ended<br>31 December<br>CHF | Due to<br>related party<br>31 December<br>CHF | Due from<br>related party<br>31 December<br>CHF |
|--|------|--|--|---|---|
| Other related parties:                   |      |  |  |   |   |
| Butterfield Trust (Guernsey) Limited     | 2017 |  | 640,729                                      | 164,781                                       | 1.0   |
|  | 2016 |  | 650,173                                      | 156,981                                       |   |
| Swisscanto Funds Centre Limited          | 2017 | -  | 700  |   | 2   |
|  | 2016 | ~  |  |   | 14  |

### Terms and conditions of transactions with related parties

All related party transactions are considered to have been made on terms equivalent to those that prevail in arm's length transactions. Outstanding balances at the year end are unsecured and interest free and settlement occurs in cash. There have been no guarantees provided or received for any related party receivables or payables.

#### Transactions with key management personnel

Key management personnel, defined as the Board of Directors and Chief Executive Officer, received the following compensation during the year:

|                              | 31 December | 31 December |
|------------------------------|-------------|-------------|
|                              | 2017        | 2016        |
|                              | CHF         | CHF         |
| Short-term employee benefits | 180,438     | 184,422     |

#### Other directors' interests

Mr PDH Hodgson is a director of Butterfield Trust (Guernsey) Limited, who act as administrators for Zürcher Kantonalbank Finance (Guernsey) Limited. Mr F O Oergeli is a director of Swisscanto Funds Centre Limited. Details of the fees paid to Butterfield Trust (Guernsey) Limited and Swisscanto Fund Centre Limited for services rendered are shown in the above

#### 15 Events after the statement of financial position date

There were no events after the reporting period that affect the amounts reported or require disclosure.

Annex 2B

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Annual financial statement 2018 of Zürcher Kantonalbank Finance (Guernsey) Limited

# ZÜRCHER KANTONALBANK FINANCE (GUERNSEY) LIMITED

## ANNUAL REPORT & AUDITED FINANCIAL STATEMENTS

For the year ended 31 December 2018

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# ZÜRCHER KANTONALBANK FINANCE (GUERNSEY) LIMITED COMPANY INFORMATION

| Directors         | F O Oegerli, Chairman (i)<br>S Stadelmann, Vice Chairman (i)<br>P D H Hodgson<br>J W Renouf (ii) |   |  |  |  |
|-------------------|--|---|--|--|--|
|                   | (i)<br>(ii)  | Member of Audit Committee<br>Chairman of Audit Committee                        |  |  |  |
| Secretary         | Butterf  | ield Management Services (Guernsey) Limited                                     |  |  |  |
| Registered office | St Peter   | ny Esplanade  |  |  |  |
| Administrator     | PO Box<br>Regenc<br>Glategr<br>St Peter  | y Court<br>ny Esplanade   |  |  |  |
| Auditor           | Royal C<br>St Julia<br>St Peter  | Young LLP<br>hambers<br>n's Avenue<br>r Port<br>ey GY1 4AF                      |  |  |  |
| Bankers           |  |   |  |  |  |
|                   | Regenc<br>Glategr<br>St Pete   | ield Bank (Guernsey) Limited<br>y Court<br>ny Esplanade<br>r Port<br>ey GY1 3AP |  |  |  |
| Custodian         |  |   |  |  |  |

# ZÜRCHER KANTONALBANK FINANCE (GUERNSEY) LIMITED DIRECTORS' REPORT

The Directors submit their report and the audited financial statements for the year ended 31 December 2018.

## Activities

The principal activity of Zürcher Kantonalbank Finance (Guernsey) Limited ("the Company") is to carry on business as a finance company and to borrow or raise money by the issue of financial instruments of whatsoever nature.

## Results

The results of the Company are shown in the Statement of Comprehensive Income on page 5.

## Dividend

The Directors do not recommend the payment of a dividend.

#### Directors

The Directors of the Company are those listed in the Company Information.

## Statement of Directors' responsibilities in respect of the financial statements

The Directors are responsible for preparing the financial statements in accordance with applicable Guernsey law and generally accepted accounting principles.

Guernsey company law requires the Directors to prepare financial statements for each financial year which give a true and fair view of the state of affairs of the Company and of the profit or loss of the Company for that year. In preparing those financial statements, the Directors should:

- select suitable accounting policies and then apply them consistently;
- make judgements and estimates that are reasonable and prudent;
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Company will continue in business.

The Directors are responsible for keeping proper accounting records that disclose with reasonable accuracy at any time the financial position of the Company and to enable them to ensure that the financial statements comply with the Companies (Guernsey) Law, 2008. They are also responsible for safeguarding the assets of the Company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

So far as each of the Directors is aware, there is no relevant audit information of which the Company's auditor is unaware, and each has taken all the steps he ought to have taken as a Director to make himself aware of any relevant audit information, and to establish that the Company's auditor is aware of that information.

#### Auditor

A resolution to reappoint Ernst & Young LLP as auditor will be put to the members at the Annual General Meeting.

For and on behalf of the Board

For and on behalf of Butterfield Management Services (Guernsey) Limited Secretary

March 2019 Date

**Rodney Smith** 

# INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF ZÜRCHER KANTONALBANK FINANCE (GUERNSEY) LIMITED

## Opinion

We have audited the financial statements of Zürcher Kantonalbank Finance (Guernsey) Limited (the "Company") for the year ended 31 December 2018 which comprise the Statement of Comprehensive Income, the Statement of Financial Position, the Statement of Changes in Equity, the Statement of Cash Flows and the related notes 1 to 16, including a summary of significant accounting policies. The financial reporting framework that has been applied in their preparation is applicable law and International Financial Reporting Standards as adopted by the European Union.

In our opinion, the financial statements:

- give a true and fair view of the state of the Company's affairs as at 31 December 2018 and of the results for the year then ended;
- have been properly prepared in accordance with International Financial Reporting Standards as adopted by the European Union; and
- have been properly prepared in accordance with the requirements of the Companies (Guernsey) Law, 2008.

## **Basis for opinion**

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the financial statements section of our report below. We are independent of the Company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the FRC's Ethical Standard, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

## Conclusions relating to going concern

We have nothing to report in respect of the following matters in relation to which the ISAs (UK) require us to report to you where:

- the directors' use of the going concern basis of accounting in the preparation of the financial statements is not appropriate; or
- the directors have not disclosed in the financial statements any identified material uncertainties that may cast significant doubt about the Company's ability to continue to adopt the going concern basis of accounting for a period of at least twelve months from the date when the financial statements are authorised for issue.

## **Other information**

The other information comprises the information included in the annual report, other than the financial statements and our auditor's report thereon. The directors are responsible for the other information.

Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in this report, we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether there is a material misstatement in the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of the other information, we are required to report that fact.

We have nothing to report in this regard.

# INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF ZÜRCHER KANTONALBANK FINANCE (GUERNSEY) LIMITED

## Matters on which we are required to report by exception

We have nothing to report in respect of the following matters in relation to which the Companies (Guernsey) Law, 2008 requires us to report to you if, in our opinion:

- proper accounting records have not been kept by the company; or
- the financial statements are not in agreement with the company's accounting records and returns; or
- we have not received all the information and explanations we require for our audit.

## **Responsibilities of directors**

As explained more fully in the Statement of Directors' responsibilities set out on page 2, the directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the directors are responsible for assessing the company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the company or to cease operations, or have no realistic alternative but to do so.

## Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

A further description of our responsibilities for the audit of the financial statements is located on the Financial Reporting Council's website at https://www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditor's report.

## Use of our report

This report is made solely to the Company's members, as a body, in accordance with Section 262 of the Companies (Guernsey) Law, 2008. Our audit work has been undertaken so that we might state to the Company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Company and the Company's members as a body, for our audit work, for this report, or for the opinions we have formed.

Enst & long UP

Ernst & Young LLP Guernsey, Channel Islands

Date: 14 March 2019

# ZÜRCHER KANTONALBANK FINANCE (GUERNSEY) LIMITED STATEMENT OF COMPREHENSIVE INCOME

For the year ended 31 December 2018

|  | Notes                     |     | Year ended<br>ember 2018<br>CHF | 31 De<br>CHF | Year ended<br>cember 2017<br>CHF |
|--|---------------------------|-----|---------------------------------|--------------|----------------------------------|
| Net trading income                                 | 6                         |     | 11,085,356                      |              | 21,995,832                       |
| Other operating income<br>Bank interest receivable |                           | 236 |                                 | 380          |                                  |
| Other operating income                             | <del></del>               |     | 236                             |              | 380                              |
| Total income                                       |                           |     | 11,085,592                      |              | 21,996,212                       |
| Operating expenses                                 | 7                         |     | (12,303,986)                    |              | (13,023,309)                     |
| Net comprehensive (loss)/inco                      | me for the financial year |     | (1,218,394)                     | •            | 8,972,903                        |

All of the items in the above are derived from continuing operations.

There were no other comprehensive income items in the period.

The notes on pages 9 to 26 form part of these financial statements.

# ZÜRCHER KANTONALBANK FINANCE (GUERNSEY) LIMITED **STATEMENT OF FINANCIAL POSITION** As at 31 December 2018

|  | Notes | 31 December 2018<br>CHF | 31 December 2017<br>CHF |
|--|-------|-------------------------|-------------------------|
| Assets   |       |                         |                         |
| Cash, amounts due from banks, money at call<br>Financial assets at fair value through profit or loss | 12    | 60,031,606              | 63,461,078              |
| Securities held for trading  | 8     | 1,456,768,432           | 1,483,779,361           |
| Derivative financial instruments   | 8, 9  | 17,468,859              | 26,453,275              |
| Accrued interest receivable and prepayments  |       | 9,540,952               | 9,057,267               |
| Total Assets   |       | 1,543,809,849           | 1,582,750,981           |
| Liabilities  |       |                         |                         |
| Amounts due to banks<br>Financial liabilties at fair value through profit or loss                    | 12    | 41,294,977              | 51,683,345              |
| Structured products  | 8     | 1,230,161,103           | 1,382,232,149           |
| Derivative financial instruments   | 8, 9  | 168,892,359             | 44,068,914              |
| Accrued interest payable and accrued expenses  |       | 1,711,256               | 1,798,025               |
| Total Liabilities  |       | 1,442,059,695           | 1,479,782,433           |
| Equity   |       |                         |                         |
| Share capital  | 13    | 1,000,000               | 1,000,000               |
| Retained earnings  |       | 100,750,154             | 101,968,548             |
| Total Equity   |       | 101,750,154             | 102,968,548             |
| Total Liabilities and Equity   |       | 1,543,809,849           | 1,582,750,981           |

The financial statements on pages 5 to 26 were approved by the Board of Directors on H March 2019 and are signed on its behalf by:

Chairman

7 hom Director

The notes on pages 9 to 26 form part of these financial statements.

# ZÜRCHER KANTONALBANK FINANCE (GUERNSEY) LIMITED STATEMENT OF CHANGES IN EQUITY For the year ended 31 December 2018

|   | Share capital<br>CHF | Retained<br>earnings<br>CHF | Total<br>equity<br>CHF |
|---|----------------------|-----------------------------|------------------------|
| At 1 January 2017                               | 1,000,000            | 92,995,645                  | 93,995,645             |
| Net comprehensive income for the financial year |                      | 8,972,903                   | 8,972,903              |
| Balance at 31 December 2017                     | 1,000,000            | 101,968,548                 | 102,968,548            |
|   |                      |                             |                        |
| At 1 January 2018                               | 1,000,000            | 101,968,548                 | 102,968,548            |
| Net comprehensive loss for the financial year   | -                    | (1,218,394)                 | (1,218,394)            |
| Balance at 31 December 2018                     | 1,000,000            | 100,750,154                 | 101,750,154            |

The notes on pages 9 to 26 form part of these financial statements.

# ZÜRCHER KANTONALBANK FINANCE (GUERNSEY) LIMITED STATEMENT OF CASH FLOWS For the year ended 31 December 2018

| Nc  | Year ended<br>ote 31 December 2018<br>CHF | Year ended<br>31 December 2017<br>CHF |
|---|---|---------------------------------------|
| Operating activities  |   |                                       |
| Net comprehensive income for the financial year   | (1,218,394)                               | 8,972,903                             |
| Adjustment for changes in working capital:  |   |                                       |
| (Increase) / decrease in accrued interest receivable and prep   | oayments (483,685)                        | 8,258,999                             |
| Decrease / (increase) in securities held for trading, designate fair value through profit or loss       | ed at<br>27,010,929                       | 410,486,235                           |
| (Decrease) / increase in structured product financial liabiliti<br>at fair value through profit or loss | ies held<br>(152,071,046)                 | (393,103,833)                         |
| Decrease / (increase) in derivative financial instruments held<br>value through profit or loss          | d at fair<br>133,807,861                  | (38,618,097)                          |
| Decrease in accrued interest payable and accrued expenses   | (86,769)                                  | (306,210)                             |
| Net cash outflows from operating activities   | 6,958,896                                 | (4,310,003)                           |
| Net cash and cash equivalents at 1 January  | 11,777,733                                | 16,087,736                            |
| Net cash and cash equivalents at 31 December  | 18,736,629                                | 11,777,733                            |

#### 1 Corporate information

Zürcher Kantonalbank Finance (Guernsey) Limited is a finance company and borrows or raises money by the issue of financial instruments of whatsoever nature. The Company was incorporated and is registered in Guernsey with the registered office being at Regency Court, Glategny Esplanade, St Peter Port, Guernsey, GY1 3AP.

#### 2 Significant accounting policies

The following accounting policies have been applied consistently in dealing with items which are considered material in relation to the financial statements of the Company.

#### 2 a) Basis of preparation

The financial statements have been prepared under the historical cost convention as modified by the revaluation to fair value through profit or loss of derivative financial instruments, over-the-counter ("OTC") options, securities, term deposits with banks and financial liabilities and in accordance with International Financial Reporting Standards ("IFRS") as adopted by the European Union.

#### 2 b) Going concern

The Company's financial position, its cash flows and liquidity position are set out in the financial statements. In addition, note 11 to the financial statements includes the Company's risk management and policies, details of its financial instruments, its exposures to credit risk and liquidity risk and its objectives, policies and processes for managing its capital. Based on the review of the 2019 and 2020 financial forecasts, the Directors consider that the Company has adequate financial resources and believe that the Company is well placed to manage its business risks successfully and to continue in operational existence for the foreseeable future. As such the Directors are satisfied that it is appropriate to prepare the financial statements on a going concern basis.

#### 2 c) Financial instruments

In the current period, the Company has adopted IFRS 9 Financial Instruments. See note 3 a) for an explanation of the impact. Comparative figures for the year ended 31 December 2017 have not been restated. Therefore, financial instruments in the comparative period are still accounted for in accordance with IAS 39 Financial Instruments: Recognition and Measurement.

#### 2 c) (i) Classification (Policy effective from 1 January 2018 (IFRS 9))

In accordance with IFRS 9, the Company classifies its financial assets and financial liabilities at initial recognition into the categories of financial assets and financial liabilities discussed below.

In applying that classification, a financial asset or financial liability is considered to be held for trading if:

- It is acquired or incurred principally for the purpose of selling or repurchasing it in the near term; or
- On initial recognition, it is part of a portfolio of identified financial instruments that are managed together and for which, there is evidence of a recent actual pattern of short-term profit-taking; or
- It is a derivative (except for a derivative that is a designated and effective hedging instrument).

#### 2 c) (i) (1) Financial assets

The Company classifies its financial assets as subsequently measured at amortised cost or measured at fair value through profit or loss on the basis of both:

- The Company's business model for managing the financial assets; and
- The contractual cash flow characteristics of the financial asset.

#### Financial assets measured at amortised cost

A financial instrument is measured at amortised cost if it is held within a business model whose objective is to hold financial assets in order to collect contractual cash flows and its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding. The Company includes in this category short-term non-financing receivables including accrued interest receivable and prepayments.

#### Financial assets measured at fair value through profit or loss ("FVTPL")

A financial asset is measured at FVTPL if:

- Its contractual terms do not give rise to cash flows on specified dates that are solely payments of principal and interest ("SPPI") on the principal amount outstanding; or
- It is not held within a business model whose objective is either to collect contractual cash flows, or to both collect contractual cash flows and sell; or
- At initial recognition, it is irrevocably designated as measured at FVTPL when doing so eliminates or significantly reduces a measurement or recognition inconsistency that would otherwise arise from measuring assets or liabilities or recognising the gains and losses on them on different bases.

#### The Company includes in this category:

- Equity instruments: these include investments in listed equities;
- Debt instruments: these include investments that are held under a business model to manage them on a fair value basis for investment income and fair value gains; and
- Instruments held for trading: this includes equity instruments and debt instruments which are acquired principally for the purpose of generating a profit from short-term fluctuations in price. This category also includes derivative contracts in an asset position.

#### 2 Significant accounting policies (continued)

## 2 c) (i) (2) Financial liabilities

*Financial liabilities measured at FVTPL* A financial liability is measured at FVTPL if it meets the definition of held for trading.

The Company includes in this category, derivative contracts in a liability position and equity and debt instruments sold short since they are classified as held for trading.

#### Financial liabilities measured at amortised cost

This category includes all financial liabilities, other than those measured at fair value through profit or loss. The Company includes in this category bank overdrafts and other short-term payables.

## 2 c) (ii) Classification - Policy effective before 1 January 2018 (IAS 39)

The Company classified its financial assets and financial liabilities at initial recognition into the following categories, in accordance with IAS 39.

#### Financial assets and liabilities at FVTPL

The category of financial assets and liabilities at FVTPL was sub-divided into:

- Financial assets and liabilities held for trading: financial assets were classified as held for trading if they are acquired for the purpose of selling and/or repurchasing in the near term. This category included equity instruments, debt instruments and derivatives. These assets were acquired principally for the purpose of generating a profit from short-term fluctuations in price. All derivatives and liabilities from short sales of financial instruments were classified as held for trading. The Company's policy is not to apply hedge accounting.
- Financial instruments designated at FVTPL upon initial recognition: these include structured products issued by the Company on the basis that they were part of a group of financial instruments that were managed and had their performance evaluated on a basis, in accordance with risk management and investment strategies of the Company.

#### Loans and receivables

Other receivables were non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. The Company included in this category accrued interest receivable and prepayments.

#### Other financial liabilities

This category included all financial liabilities, other than those classified as at FVTPL. The Company included in this category bank overdrafts and other short-term payables.

#### 2 c) (iii) Recognition

The Company recognises a financial asset or a financial liability when it becomes a party to the contractual provisions of the instrument.

Purchases or sales of financial assets that require delivery of assets within the time frame generally established by regulation or convention in the market place (regular way trades) are recognised on the trade date, i.e., the date that the Company commits to purchase or sell the asset.

#### 2 c) (iv) Initial measurement

Financial assets and financial liabilities at FVTPL are recorded in the statement of financial position at fair value. All transaction costs for such instruments are recognised directly in profit or loss.

Financial assets and liabilities (other than those classified as at FVTPL) are measured initially at their fair value plus any directly attributable incremental costs of acquisition or issue.

#### 2 c) (v) Subsequent measurement

After initial measurement, the Company measures financial instruments which are classified as at FVTPL at fair value. Subsequent changes in the fair value of those financial instruments are recorded in net gain or loss on financial assets and liabilities at FVTPL in the statement of comprehensive income as part of net trading income (see note 6). Interest and dividends earned or paid on these instruments are recorded in the statement of comprehensive income as part of net trading income as part of net trading income (see note 6).

Debt instruments, other than those classified as at FVTPL, are measured at amortised cost using the effective interest method less any allowance for impairment. Gains and losses are recognised in profit or loss when the debt instruments are derecognised or impaired, as well as through the amortisation process.

Financial liabilities, other than those classified as at FVTPL, are measured at amortised cost using the effective interest method. Gains and losses are recognised in profit or loss when the liabilities are derecognised, as well as through the amortisation process.

#### 2 Significant accounting policies (continued)

#### 2 c) (v) Subsequent measurement (continued)

The effective interest method (EIR) is a method of calculating the amortised cost of a financial asset or a financial liability and of allocating and recognising the interest income or interest expense in profit or loss over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments or receipts through the expected life of the financial asset or financial liability to the gross carrying amount of the financial asset or to the amortised cost of the financial liability. When calculating the effective interest rate, the Company estimates cash flows considering all contractual terms of the financial instruments, but does not consider expected credit losses. The calculation includes all fees paid or received between parties to the contract that are an integral part of the effective interest rate, transaction costs and all other premiums or discounts.

#### 2 c) (vi) Derecognition

A financial asset (or, where applicable, a part of a financial asset or a part of a group of similar financial assets) is derecognised where the rights to receive cash flows from the asset have expired, or the Company has transferred its rights to receive cash flows from the asset, or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a pass-through arrangement and the Company has:

- Transferred substantially all of the risks and rewards of the asset; or
- Neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

When the Company has transferred its right to receive cash flows from an asset (or has entered into a pass-through arrangement), and has neither transferred nor retained substantially all of the risks and rewards of the asset nor transferred control of the asset, the asset is recognised to the extent of the Company's continuing involvement in the asset. In that case, the Company also recognises an associated liability. The transferred asset and the associated liability are measured on a basis that reflects the rights and obligations that the Company has retained.

The Company derecognises a financial liability when the obligation under the liability is discharged, cancelled or expired.

#### 2 d) Impairment of financial assets

#### 2 d) (i) Policy effective from 1 January 2018 (IFRS 9)

The Company holds only trade receivables with no financing component and which are due in less than 12 months at amortised cost and, as such, has chosen to apply an approach similar to the simplified approach for expected credit losses (ECL) under IFRS 9 to all its trade receivables. Therefore, the Company does not track changes in credit risk, but instead, recognises a loss allowance based on lifetime ECLs at each reporting date.

The Company's approach to ECLs reflects a probability-weighted outcome, the time value of money and reasonable and supportable information that is available without undue cost or effort at the reporting date about past events, current conditions and forecasts of future economic conditions.

The Company uses the provision matrix as a practical expedient to measuring ECLs on trade receivables, based on days past due for groupings of receivables with similar loss patterns. Receivables are grouped based on their nature. The provision matrix is based on historical observed loss rates over the expected life of the receivables and is adjusted for forward-looking estimates.

#### 2 d) (ii) Policy effective before 1 January 2018 (IAS 39)

The Company assesses at each reporting date whether a financial asset or group of financial assets is impaired. A financial asset or a group of financial assets is deemed to be impaired if, and only if, there is objective evidence of impairment as a result of one or more events that has occurred after the initial recognition of the asset (an incurred loss event) and that loss event has an impact on the estimated future cash flows of the financial asset or the group of financial assets that can be reliably estimated.

Evidence of impairment may include indications that the debtor, or a group of debtors, was experiencing significant financial difficulty, default or delinquency in interest or principal payments, the probability that they would enter bankruptcy or other financial reorganisation and, where observable data indicated that there was a measurable decrease in the estimated future cash flows, such as changes in arrears or economic conditions that correlate with defaults. If there was objective evidence that an impairment loss had been incurred, the amount of the loss was measured as the difference between the asset's carrying amount and the present value of estimated future cash flows (excluding future ECLs that have not yet been incurred) discounted using the asset's original EIR. The carrying amount of the asset was reduced through the use of an allowance account and the amount of the loss was recognised in profit or loss as credit loss expense.

Impaired debts, together with the associated allowance, were written off when there was no realistic prospect of future recovery and all collateral had been realised or had been transferred to the Company. If a previous write-off was later recovered, the recovery was credited to the credit loss expense.

Interest revenue on impaired financial assets was recognised using the rate of interest used to discount the future cash flows for the purpose of measuring the impairment loss.

#### 2 Significant accounting policies (continued)

#### 2 e) Offsetting of financial instruments

Financial assets and financial liabilities are offset and the net amount is reported in the statement of financial position if, and only if, there is a currently enforceable legal right to offset the recognised amounts and there is an intention to settle on a net basis, or to realise the asset and settle the liability simultaneously. This is generally not the case with master netting agreements unless one party to the agreement defaults and the related assets and liabilities are presented gross in the statement of financial position.

#### 2 f) Fair value measurement

The Company measures its investments in financial instruments, such as equity instruments, debt instruments, other interest bearing investments and derivatives, at fair value at each reporting date.

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value measurement is based on the presumption that the transaction to sell the asset or transfer the liability takes place either in the principal market for the asset or liability or, in the absence of a principal market, in the most advantageous market for the asset or liability. The principal or the most advantageous market must be accessible to the Company. The fair value of an asset or a liability is measured using the assumptions that market participants would use when pricing the asset or liability, assuming that market participants act in their economic best interest. A fair value measurement of a non-financial asset takes into account a market participant's ability to generate economic benefits by using the asset in its highest and best use or by selling it to another market participant that would use the asset in its highest and best use.

The fair value for financial instruments traded in active markets at the reporting date is based on their quoted price (bid price for long positions and ask price for short positions), without any deduction for transaction costs.

For all other financial instruments not traded in an active market, the fair value is determined using valuation techniques deemed to be appropriate in the circumstances. Valuation techniques include the market approach (i.e., using recent arm's length market transactions, adjusted as necessary, and reference to the current market value of another instrument that is substantially the same) and the income approach (i.e., discounted cash flow analysis and option pricing models making as much use of available and supportable market data as possible).

For assets and liabilities that are measured at fair value on a recurring basis, the Company identifies transfers between levels in the hierarchy by re-assessing the categorisation (based on the lowest level input that is significant to the fair value measurement as a whole), and deems transfers to have occurred at the beginning of each reporting period.

#### 2 g) Functional and presentation currency

The functional currency is the currency of the primary economic environment in which the Company operates. The majority of the Company's transactions are in Swiss francs, the performance is evaluated and its liquidity is managed in Swiss francs, and the functional currency of its parent entity is Swiss francs. Therefore, the Company concludes that the Swiss franc is its functional currency.

The Company's presentation currency is also the Swiss franc.

#### 2 h) Foreign currency translations

Transactions during the period, including purchases and sales of financial instruments, income and expenses, are translated at the rate of exchange prevailing on the date of the transaction.

Monetary assets and liabilities denominated in foreign currencies are retranslated at the functional currency rate of exchange ruling at the reporting date.

Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rates as at the dates of the initial transactions. Non-monetary items measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value was determined.

Foreign currency transaction gains and losses on financial instruments classified as at FVTPL are included in profit or loss in the statement of comprehensive income as part of net trading income (see note 6).

#### 2 i) Cash and cash equivalents

Cash and cash equivalents in the statement of financial position comprise cash on hand and short-term deposits in banks that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value, with original maturities of three months or less.

Short-term investments that are not held for the purpose of meeting short-term cash commitments and restricted margin accounts are not considered as 'cash and cash equivalents'.

For the purpose of the statement of cash flows, cash and cash equivalents consist of cash and cash equivalents as defined above, net of outstanding bank overdrafts when applicable.

#### 2 j) Investment income

Investment income comprises of interest receivable on the maturity of the Company's term deposits with banks. Interest income is recognised as it accrues and is included in the statement of comprepensive income.

#### 2 Significant accounting policies (continued)

#### 2 k) Net trading income

Net trading income is comprised of gains and losses arising on the purchase, sale and revaluation of financial assets and liabilities at FVTPL, along with gains and losses arising on the revaluation and impairment of financial assets and liabilities held at amortised cost.

#### 2 I) Operating expenses

Fees are recognised on an accrual basis. Refer to note 7 for details of administration fees, audit fees, Directors' fees and parent company service costs.

#### 3 Changes in accounting policies and disclosures

The Company applied for the first time certain standards and amendments, which are effective for annual periods beginning on or after 1 January 2018.

The nature and the impact of each new standard and amendment is described below:

#### 3 a) (i) IFRS 9 Financial Instruments

The Company adopted IFRS 9 Financial Instruments on its effective date of 1 January 2018. IFRS 9 replaces IAS 39 Financial Instruments: Recognition and Measurement and introduces new requirements for classification and measurement, impairment and hedge accounting. IFRS 9 is not applicable to items that have already been derecognised at 1 January 2018, the date of initial application.

#### Classification and measurement

The Company has assessed the classification of financial instruments as at the date of initial application and has applied such classification retrospectively. Based on that assessment:

- · All financial assets previously held at fair value continue to be measured at fair value;
- Debt instruments and equity instruments are acquired and traded for the purpose of meeting the financial liabilities of the Company as they fall due. Therefore, they meet the held-for-trading criteria and are required to be measured at FVTPL;
- Structured products and derivatives instruments issued by the Company continue to be measured at FVTPL;
- Financial assets previously classified as loans and receivables are held to collect the contractual cash flows and give rise to cash flows representing solely payments of principal and interest. Thus, such instruments continue to be measured at amortised cost under IFRS 9;
- The measurement of other financial assets and liabilities remains the same under IFRS 9 as under IAS 39.

#### Impairment

IFRS 9 requires the Company to record ECLs on all of its trade receivables, either on a 12-month or lifetime basis. Given the limited exposure of the Company to credit risk, this amendment has not had a material impact on the financial statements. The Company only holds trade receivables with no financing component and that have maturities of less than 12 months at amortised cost. Therefore, it has adopted an approach similar to the simplified approach to ECLs.

#### Hedge accounting

The Company has not applied hedge accounting under IAS 39 nor will it apply hedge accounting under IFRS 9.

#### 3 a) (ii) Impact of adoption of IFRS 9

The classification and measurement requirements of IFRS 9 have been adopted retrospectively as of the date of initial application on 1 January 2018. However, the Company has chosen to take advantage of the option not to restate comparatives. Therefore, the 2017 figures are presented and measured under IAS 39. The following table shows the original measurement categories in accordance with IAS 39 and the new measurement categories under IFRS 9 for the Company's financial assets and financial liabilities as at 1 January 2018:

|   |                             | IAS 39        |                | IFRS 9        |
|---|-----------------------------|---------------|----------------|---------------|
|   | 1AS 39                      | measurement   | IFRS9          | measurement   |
|   | classification              | CHF           | classification | CHF           |
| Financial assets                              |                             |               |                |               |
| Securities held for trading                   | Held for trading at FVTPL   | 1,483,779,361 | FVTPL          | 1,483,779,361 |
| Derivative financial instruments              | Held for trading at FVTPL   | 26,453,275    | FVTPL          | 26,453,275    |
| Accrued interest receivable and prepayments   | Loans and receivables       | 9,057,267     | Amortised cost | 9,057,267     |
| Cash and cash equivalents                     | Other receivables           | 63,461,078    | Amortised cost | 63,461,078    |
| Financial liabilities                         |                             |               |                |               |
| Structured product financial instruments      | Other financial liabilities | 1,382,232,149 | Amortised cost | 1,382,232,149 |
| Derivative financial instruments              | Other financial liabilities | 44,068,914    | Amortised cost | 44,068,914    |
| Amounts due to banks                          | Heid for trading at FVTPL   | 51,683,345    | Amortised cost | 51,683,345    |
| Accrued interest payable and accrued expenses | Held for trading at FVTPL   | 1,798,025     | FVTPL          | 1,798,025     |

#### 3 Changes in accounting policies and disclosures (continued)

#### 3 a) (ii) Impact of adoption of IFRS 9 (continued)

In line with the characteristics of the Company's financial instruments as well as its approach to their management, the Company neither revoked nor made any new designations on the date of initial application. IFRS 9 has not resulted in changes in the carrying amount of the Company's financial instruments due to changes in measurement categories. All financial assets that were classified as FVTPL under IFRS 9. All financial assets that were classified as loans and receivables and measured at amortised cost continue to be.

In addition, the application of the ECL model under IFRS 9 has not significantly changed the carrying amounts of the Company's amortised cost financial assets. No ECL allowance has been recorded against the Company's trade receivables compared to no impairment recorded under IAS 39.

The carrying amounts of amortised cost instruments continued to approximate these instruments' fair values on the date of transition after transitioning to IFRS 9.

#### 3 b) IFRS 15 Revenue from contracts with customers

The Company adopted IFRS 15 Revenue from contracts with customers on its effective date of 1 January 2018. IFRS 15 replaces IAS 18 Revenue and establishes a five-step model to account for revenue arising from contracts with customers. In addition, guidance on interest and dividend income have been moved from IAS 18 to IFRS 9 without significant changes to the requirements. Therefore, there was no impact of adopting IFRS 15 for the Company.

#### 4 Accounting standards, interpretations and amendments issued by not yet effective

At the date of authorisation of these financial statements, the following relevant standards and interpretations, which have not been applied, were in issue but not yet effective:

#### 4 a) Amendments to IFRS 9: Prepayment Features with Negative Compensation

Under IFRS 9, a debt instrument can be measured at amortised cost or at fair value through other comprehensive income, provided that the contractual cash flows are 'solely payments of principal and interest on the principal amount outstanding' (the SPPI criterion) and the instrument is held within the appropriate business model for that classification. The amendments to IFRS 9 clarify that a financial asset passes the SPPI criterion regardless of the event or circumstance that causes the early termination of the contract and irrespective of which party pays or receives reasonable compensation for the early termination of the contract.

The amendments should be applied retrospectively and are effective from 1 January 2019, with earlier application permitted. These amendments have no impact on the financial statements of the Company.

#### 4 b) Annual Improvements 2015-2017 Cycle (issued in December 2017)

- These improvements include:
- IAS 12 Income Taxes

The amendments clarify that the income tax consequences of dividends are linked more directly to past transactions or events that generated distributable profits than to distributions to owners. Therefore, an entity recognises the income tax consequences of dividends in profit or loss, other comprehensive income or equity according to where the entity originally recognised those past transactions or events.

An entity applies those amendments for annual reporting periods beginning on or after 1 January 2019, with early application permitted. When an entity first applies those amendments, it applies them to the income tax consequences of dividends recognised on or after the beginning of the earliest comparative period. The Company does not expect any effect on its financial statements.

#### 5 Taxation

The Company is taxed at the Company standard rate (0%) in Guernsey.

| 6 | Net trading income  | Year ended               | Year ended                     |
|---|---|--------------------------|--------------------------------|
|   |   | 31 December<br>2018      | 31 December<br>2017            |
|   |   | CHF                      | CHF                            |
|   |   |                          |                                |
|   | Gains less losses on instruments held for trading   | (1 206 201)              | 373,794                        |
|   | Foreign currency  | (1,206,201)<br>(568,480) | 3/3,/94                        |
|   | Trading securities<br>Other income  | (300,400)                | (2,500)                        |
|   |   |                          |                                |
|   | Gains less losses on fair value hedging   |                          |                                |
|   | Gains less losses from fair value d rect hedged items   | 201,010                  | 1,485,983                      |
|   | Gains less losses from fair value direct hedging instruments  | 1,426,095                | (750,818)                      |
|   | Gains less losses on instruments designated at fair value   |                          |                                |
|   | Financial liabilities designated at fair value through profit or loss   | 85,388,072               | (91,924,597)                   |
|   | Derivatives managed with financial instruments designated at fair value through profit or loss                  | (74, 155, 140)           | 112,470,698                    |
|   |   |                          |                                |
|   |   | 11,085,356               | 21,995,832                     |
|   |   |                          |                                |
| 7 | Operating expenses  | Year ended               | Year ended                     |
|   |   | 31 December              | 31 December                    |
|   |   | 2018                     | 2017                           |
|   |   | CHF                      | CHF                            |
|   | Administrative expenss  |                          |                                |
|   | Administration fees   | 644,973                  | 640,729                        |
|   | Audit fees  | 89,234                   | 86,407                         |
|   | Directors' fees   | 9,009                    | 9,024                          |
|   | Zürcher Kantonalbank service costs  |                          |                                |
|   | Development costs   | 1,500,000<br>1,500,000   | 1,500,000<br>1,500,00 <b>0</b> |
|   | Product issuing costs<br>Distribution costs   | 5,462,816                | 6,124,279                      |
|   | Risk management fee   | 2,000,000                | 2,000,000                      |
|   | Keep-well agreement charges   | 583,911                  | 644,429                        |
|   | Employee expenses   |                          |                                |
|   | Salaries  | 398,634                  | 435,807                        |
|   | Social security   | 26,451                   | 24,954<br>20,138               |
|   | Health insurance<br>Other staff expenses  | 21,871<br>3,573          | 20,138                         |
|   | Other expenses  | 63,514                   | 37,509                         |
|   |   |                          |                                |
|   |   | 12,303,986               | 13,023,309                     |
| 0 | Financial assets and financial liabilities at fair value through profit or loss                                 |                          |                                |
| 8 | mancial assess and mancial namines at lan value dirough profit of 1055  |                          |                                |
|   | Financial assets at fair value through profit or loss   | 2018                     | 2017                           |
|   |   | CHF                      | CHF                            |
|   | Securities held for trading   |                          |                                |
|   | Debt securities   | 1,456,492,514            | 1,483,683,236                  |
|   | Listed equity instruments   | 275,918                  | 96,125                         |
|   |   | 1,456,768,432            | 1,483,779,361                  |
|   | Derivative financial instruments  |                          |                                |
|   | Currency forwards   | 456,560                  | 166,352                        |
|   | interest rate caps and floors   | 9,541                    | 27,811                         |
|   | Interest rate swaps   | 8,991,171                | 11,484,485                     |
|   | Options<br>Total return sware   | 5,793,081<br>2,218,506   | 9,328,714<br>5,445,913         |
|   | Total return swaps  | 2,218,506                | 3,443,313                      |
|   |   | 17,468,859               | 26,453,275                     |
|   | Total financial assets at fair value through profit or loss   | 1,474,237,291            | 1,510,232,636                  |
|   | a second a s |                          |                                |

## 8 Financial assets and financial liabilities at fair value through profit or loss (continued)

In the comparative period the Company classified its equity instruments and debt instruments as financial assets held for trading and its derivative financial instruments were designated at FVTPL.

| Financial liabilities at fair value through profit or loss       | 2018          | 2017          |
|--|---------------|---------------|
| •••  | CHF           | CHF           |
| Structured product financial instruments                         |               |               |
| Linked to commodities  | 971,037       | 948,457       |
| Linked to credit derivatives                                     | 176,478,447   | 154,860,661   |
| Linked to equities / equity indices                              | 858,108,322   | 993,705,793   |
| Linked to foreign exchange                                       | 105,004,914   | 96,969,360    |
| Linked to interest instruments                                   | 75,973,743    | 99,743,075    |
| Linked to mixed derivatives                                      | 13,624,640    | 36,004,803    |
|  | 1,230,161,103 | 1,382,232,149 |
| Derivative financial instruments                                 |               |               |
| Credit default swaps   | 48,804        | 35,157        |
| Currency forwards  | 217,686       | 518,611       |
| Interest rate swaps  | 9,271,188     | 11,919,036    |
| Options  | 95,443,252    | 21,961,353    |
| Total return swaps   | 63,911,429    | 9,634,757     |
|  | 168,892,359   | 44,068,914    |
| Total financial liabilities at fair value through profit or loss | 1,399,053,462 | 1,426,301,063 |

#### 9 Derivative contracts

Derivative contracts serve as components of the structured product financial liabilities of the Company. The derivative contracts that the Company may hold or issue include: futures; options; forward currency contracts; currency swaps; interest rate caps and floors; interest rate swaps; total return swaps; and credit default swaps.

The Company uses derivative financial instruments to economically hedge its risks associated with fluctuations in the value of structured product financial liabilities and interest rate risk associated with the Guernsey Risk Manager portfolio (the Company does not designate any derivative as a hedging instrument for hedge accounting purposes).

Derivatives often reflect, at their inception, only a mutual exchange of promises with little or no transfer of tangible consideration. However, these instruments frequently involve a high degree of leverage and are very volatile. A relatively small movement in the underlying of a derivative contract may have a significant impact on the value of the contract.

OTC derivatives may expose the Company to the risks associated with absence of an exchange market on which to close out an open position. The counterparty for all derivative contracts in force at the year-end was the Company's parent entity, Zürcher Kantonalbank, and as such no credit valuation adjustments or debit valuation adjustments have been made to the OTC derivatives in the current or previous year. As at the date of signing these financial statements, Standard & Poor's had assigned Zürcher Kantonalbank a credit rating of AAA.

The following table shows the fair value of derivative financial instruments, recorded as assets or liabilities, together with their notional amounts. The notional amount, recorded gross, is the amount of a derivative's underlying asset, reference rate or index and is the basis upon which changes in the value of the derivative are measured. The notional amounts indicate the volume of transactions outstanding at the reporting dates and are not indicative of either market risk or credit risk.

|   | 2018      |             |                    | 2017       |            |                    |
|---|-----------|-------------|--------------------|------------|------------|--------------------|
|   | Assets    | Liabiltiies | Notional<br>Amount | Assets     | Liabilties | Notional<br>Amount |
|   | CHF       | CHF         | CHF                | CHF        | CHF        | CHF                |
| Derivatives primarily held for trading purposes |           |             |                    |            |            |                    |
| Credit default swaps                            |           | 48,804      | 3,300,000          |            | 35,157     | 4,155,000          |
| Interest rate caps and floors                   | 9,541     |             | 6,198,005          | 27,811     |            | 6,435,990          |
| Options   | 5,793,081 | 95,443,252  | 482,931,981        | 9,328,714  | 21,961,353 | 477,575,189        |
| Total return swaps                              | 2,218,506 | 63,911,429  | 629,236,828        | 5,445,913  | 9,634,757  | 574,318,612        |
|   |           |             |                    |            |            |                    |
|   | 8,021,128 | 159,403,485 | 1,121,666,814      | 14,802,438 | 31,631,267 | 1,062,484,791      |

#### 9 Derivative contracts (continued)

|   |            | 2018        |                    |            | 2017       |                    |
|---|------------|-------------|--------------------|------------|------------|--------------------|
|   | Assets     | Liabiltiies | Notional<br>Amount | Assets     | Liabilties | Notional<br>Amount |
|   | CHF        | CHF         | CHF                | CHF        | CHF        | CHF                |
| Derivatives primarily held for risk management purposes |            |             |                    |            |            |                    |
| Interest rate swaps                                     | 8,991,171  | 9,271,188   | 1,504,820,340      | 11,484,485 | 11,919,036 | 1,634,820,720      |
| Currency forwards                                       | 456,560    | 217,686     | 24,944,162         | 166,352    | 518,611    | 33,473,138         |
|   | 9,447,731  | 9,488,874   | 1,529,764,502      | 11,650,837 | 12,437,647 | 1,668,293,858      |
| Total derivatives                                       | 17,468,859 | 168,892,359 | 2,651,431,316      | 26,453,275 | 44,068,914 | 2,730,778,649      |

#### 10 Fair value of financial instruments

All assets and liabilities for which fair value is measured or disclosed in the financial statements are categorised within the fair value hierarchy, described as follows, based on the lowest level input that is significant to the fair value measurement as a whole:

- Level 1: Quoted (unadjusted) market prices in active markets for identical assets or liabilities.
- Level 2: Valuation techniques for which the lowest level input that is significant to the fair value measurement is directly or indirectly observable.
- Level 3: Valuation techniques for which the lowest level input that is significant to the fair value measurement is unobservable.

The following table shows financial instruments recognised at fair value:

|   |                          | es  |         |   |               |   |         |   |
|---|--------------------------|---|---------|---|---------------|---|---------|---|
|   |                          | 2018  |         |   |               | 2017  | 1       |   |
|   | Level 1                  | Level 2   | Level 3 | Total   | Level 1       | Level 2   | Level 3 | Total   |
|   | CHF                      | CHF   | CHF     | CHF   | CHF           | CHF   | CHF     | CHF   |
| Financial assets  |                          |   |         |   |               |   |         |   |
| Securities held for trading (note 8)  |                          |   |         |   |               |   |         |   |
| Equity instruments  | 275,918                  |   |         | 275,918   | 96,125        |   |         | 96,125  |
| Debt instruments  | 1,429,850,953            | 26,641,561  |         | 1,456,492,514   | 1,477,832,921 | 5,850,315   |         | 1,483,683,236   |
| Derivative financial instruments (not   | te 9)                    |   |         |   |               |   |         |   |
| Currency forwards   | -                        | 456,560   |         | 456,560   | ÷             | 166,352   | 5       | 166,352   |
| Interest rate caps and floors   |                          | 9,541   | -       | 9,541   |               | 27,811  | 2       | 27,811  |
| Interest rate swaps   | -                        | 8,991,171   | 14      | 8,991,171   | 4             | 11,484,485  |         | 11,484,485  |
| Options   | +                        | 5,793,081   |         | 5,793,081   |               | 9,328,714   | -       | 9,328,714   |
| Total return swaps  |                          | 2,218,506   |         | 2,218,506   |               | 5,445,913   |         | 5,445,913   |
| Total   | 1,430,126,871            | 44,110,420  |         | 1,474,237,291   | 1,477,929,046 | 32,303,590  | -       | 1,510, <u>232,636</u>   |
| Financial liabilities   |                          |   |         |   |               |   |         |   |
| rmanual indunities  |                          |   |         |   |               |   |         |   |
|   | nents (note 8)           |   |         |   |               |   |         |   |
| Structured product financial instrum  | nents (note 8)           | 971.037   |         | 971.037   |               | 948.457   |         | 948.457   |
| Structured product financial instrum<br>Linked to commodities   | nents (note 8)<br>-<br>- | 971,037<br>176.478.447  | -       | 971,037<br>176.478.447  |               | 948,457<br>154.860.661  | :       | 948,457<br>154.860.661  |
| Structured product financial instrum<br>Linked to commodities<br>Linked to credit derivatives   | nents (note 8)<br>-<br>- | 176,478,447   | -       | 176,478,447   |               | 154,860,661   |         | 154,860,661   |
| Structured product financial instrum<br>Linked to commodities<br>Linked to credit derivatives<br>Linked to equities / equity indices  | :                        | 176,478,447<br>858,108,322  |         | 176,478,447<br>858,108,322  |               | 154,860,661<br>993,705,793  | • • • • | 154,860,661<br>993,705,793  |
| Structured product financial instrum<br>Linked to commodities<br>Linked to credit derivatives<br>Linked to equities / equity indices<br>Linked to foreign exchange  | :                        | 176,478,447<br>858,108,322<br>105,004,914   |         | 176,478,447<br>858,108,322<br>105,004,914   |               | 154,860,661<br>993,705,793<br>96,969,360  |         | 154,860,661<br>993,705,793<br>96,969,360  |
| Structured product financial instrum<br>Linked to commodities<br>Linked to credit derivatives<br>Linked to equities / equity indices<br>Linked to foreign exchange<br>Linked to interest instruments  |                          | 176,478,447<br>858,108,322<br>105,004,914<br>75,973,743   | -       | 176,478,447<br>858,108,322<br>105,004,914<br>75,973,743   |               | 154,860,661<br>993,705,793<br>96,969,360<br>99,743,075  | -       | 154,860,661<br>993,705,793<br>96,969,360<br>99,743,075  |
| Structured product financial instrum<br>Linked to commodities<br>Linked to credit derivatives<br>Linked to equities / equity indices<br>Linked to foreign exchange<br>Linked to interest instruments<br>Linked to mixed derivatives   |                          | 176,478,447<br>858,108,322<br>105,004,914   | -       | 176,478,447<br>858,108,322<br>105,004,914   |               | 154,860,661<br>993,705,793<br>96,969,360  | -       | 154,860,661<br>993,705,793<br>96,969,360  |
| Structured product financial instrum<br>Linked to commodities<br>Linked to credit derivatives<br>Linked to equities / equity indices<br>Linked to foreign exchange<br>Linked to interest instruments<br>Linked to mixed derivatives<br>Derivative financial instruments (no   |                          | 176,478,447<br>858,108,322<br>105,004,914<br>75,973,743<br>13,624,640                                   | -       | 176,478,447<br>858,108,322<br>105,004,914<br>75,973,743<br>13,624,640                                   |               | 154,860,661<br>993,705,793<br>96,969,360<br>99,743,075<br>36,004,803                                    | -       | 154,860,661<br>993,705,793<br>96,969,360<br>99,743,075<br>36,004,803                                    |
| Structured product financial instrum<br>Linked to commodities<br>Linked to credit derivatives<br>Linked to equities / equity indices<br>Linked to foreign exchange<br>Linked to interest instruments<br>Linked to mixed derivatives<br>Derivative financial instruments (no<br>Credit default swaps   | -<br>-<br>-<br>-         | 176,478,447<br>858,108,322<br>105,004,914<br>75,973,743<br>13,624,640<br>48,804                         |         | 176,478,447<br>858,108,322<br>105,004,914<br>75,973,743   |               | 154,860,661<br>993,705,793<br>96,969,360<br>99,743,075<br>36,004,803<br>35,157                          | ÷       | 154,860,661<br>993,705,793<br>96,969,360<br>99,743,075  |
| Structured product financial instrum<br>Linked to commodities<br>Linked to credit derivatives<br>Linked to equities / equity indices<br>Linked to foreign exchange<br>Linked to interest instruments<br>Linked to mixed derivatives<br>Derivative financial instruments (no<br>Credit default swaps<br>Currency forwards                        | -<br>-<br>-<br>-         | 176,478,447<br>858,108,322<br>105,004,914<br>75,973,743<br>13,624,640<br>48,804<br>217,686              |         | 176,478,447<br>858,108,322<br>105,004,914<br>75,973,743<br>13,624,640<br>48,804<br>217,686              | -             | 154,860,661<br>993,705,793<br>96,969,360<br>99,743,075<br>36,004,803<br>35,157<br>518,611               | •       | 154,860,661<br>993,705,793<br>96,969,360<br>99,743,075<br>36,004,803<br>35,157<br>518,611               |
| Structured product financial instrum<br>Linked to commodities<br>Linked to credit derivatives<br>Linked to equities / equity indices<br>Linked to foreign exchange<br>Linked to interest instruments<br>Linked to mixed derivatives<br>Derivative financial instruments (no<br>Credit default swaps<br>Currency forwards<br>Interest rate swaps | -<br>-<br>-<br>-         | 176,478,447<br>858,108,322<br>105,004,914<br>75,973,743<br>13,624,640<br>48,804<br>217,686<br>9,271,188 |         | 176,478,447<br>858,108,322<br>105,004,914<br>75,973,743<br>13,624,640<br>48,804<br>217,686<br>9,271,188 | -             | 154,860,661<br>993,705,793<br>96,969,360<br>99,743,075<br>36,004,803<br>35,157<br>518,611<br>11,919,036 | •       | 154,860,661<br>993,705,793<br>96,969,360<br>99,743,075<br>36,004,803<br>35,157<br>518,611<br>11,919,036 |
| Structured product financial instrum<br>Linked to commodities<br>Linked to credit derivatives<br>Linked to equities / equity indices<br>Linked to foreign exchange<br>Linked to interest instruments<br>Linked to mixed derivatives<br>Derivative financial instruments (no<br>Credit default swaps<br>Currency forwards                        | -<br>-<br>-<br>-         | 176,478,447<br>858,108,322<br>105,004,914<br>75,973,743<br>13,624,640<br>48,804<br>217,686              |         | 176,478,447<br>858,108,322<br>105,004,914<br>75,973,743<br>13,624,640<br>48,804<br>217,686              | -             | 154,860,661<br>993,705,793<br>96,969,360<br>99,743,075<br>36,004,803<br>35,157<br>518,611               | •       | 154,860,661<br>993,705,793<br>96,969,360<br>99,743,075<br>36,004,803<br>35,157<br>518,611               |

For all other financial assets and liabilities, the carrying value is an approximation of fair value, including: trade and other receivables; cash and cash equivalents; and trade and other payables.

#### 10 Fair value of financial instruments (continued)

There were no changes to valuation techniques or transfers between Levels 1, 2 and 3 during the year.

Where there are quoted prices in an active market for identical assets or liabilities, a security is included in Level 1. Where values are based on inputs other than quoted prices included within Level 1, such as quoted prices for similar assets or liabilities in active markets, or quoted prices for identical assets or liabilities in markets that are not active, they are included in Level 2.

The fair values of options are calculated using an option pricing model based on direct market data, e.g., bond or share prices, and indirect market data, e.g., interest, implied volatility and dividend estimates. The fair value of such options is included within Level 2.

The fair values of other derivatives are calculated based on quotes from counterparties to the agreements which are corroborated by market data. The fair value of such interest rate swaps is included within Level 2.

The fair values of structured product financial instruments, which are set up as combinations of the components of the respective structured product, are calculated based on the sum of the valuations of its components. As the fair values of the components of the structured products are either Level 1 (securities held for trading) or Level 2 (term deposits with banks and derivative financial instruments), the fair value of such structured products is included within Level 2.

#### 11 Financial risk and management objectives and policies

#### 11 a) Introduction

The main risks that the Company is exposed to are credit risk, liquidity risk and market risk (which includes interest rate risk, currency risk and price risk). The Directors regularly review and agree policies for managing each of these risks as summarised below, which includes the use of derivatives and other financial instruments. The risk management guidelines for the Company set out guidelines for identifying, managing and monitoring the risks to which the Company is exposed and in particular:

- define the rules and procedures for managing credit, liquidity and market risks;
- set out the applicable long-term risk policies of the Company and Zürcher Kantonalbank;
- define the entity to which duties and responsibilities in relation to risk monitoring are assigned; and
- provide an overview of relevant powers and responsibilities.

The general guidelines are:

- credit, liquidity and market risks shall be managed in accordance with the rules and policies laid down in the guidelines on risk management for Zürcher Kantonalbank, and its subsidiaries (collectively, the "group") risk policies;
- subject to the constraints of the applicable group risk policies, the Company shall define appropriate limits with a view to mitigating default and market risks;
- Zürcher Kantonalbank shall be responsible for managing risks subject to approved limits;
- Zürcher Kantonalbank shall be responsible for quantifying risk, preparing reports on risk monitoring conducted, and reporting on risks; and
- the Directors of the Company shall be entitled to limit the level of risk exposure and the list of approved products at any time.

There were no changes to the Company's risk management guidelines during the reporting period.

#### 11 b) Risk management structure

The Chief Executive Officer of the Company is responsible for monitoring both the liquidity and solvency of the Company and compliance with the Company's risk limits. Furthermore, the Chief Executive Officer is also responsible for documenting risks limits, defining actions to be taken in the event of a breach of any of those limits, informing the Directors of any limit breaches and subsequent actions taken.

The Directors supervise management and are ultimately responsible for the overall risk management of the Company.

#### 11 c) Risk measurement and reporting system

Risk measurement, preparation of risk monitoring reports and risk reporting have been delegated to Zürcher Kantonalbank. To ensure a constant monitoring of risk by the Company's management, a risk report is prepared by Zürcher Kantonalbank on a daily basis and is sent to the management of the Company.

The Directors of the Company have defined the following sensitivity limits for credit risk, interest rate risk and currency risk, as well as counterparty exposure limits, which are calculated on a daily or weekly basis by Zürcher Kantonalbank.

#### 11 c) (i) Credit spread risk sensitivity limits

Credit spread risk refers to debt instruments and is related to daily changes in the spread of an instrument's yield curve over the zerocoupon Treasury yield curve (the z-spread). The sensitivity limit defines the maximum profit and loss daily change limit permitted on the theoretical hedging costs on the Company's treasury management portfolio. The Directors have defined a maximum credit spread sensitivity ("DV01") per issuer with a view to mitigating the credit risk associated with debt instruments.

#### 11 Financial risk and management objectives and policies (continued)

## 11 c) (i) Credit risk spread sensitivity limits (continued)

DV01 is calculated as the sensitivity of a contract to a 1 basis point fluctuation in the credit spread curve and is set at a level that the Directors believe allows for sufficient returns to be generated on the Company's securities held for trading without exposing it to excessive credit risk.

|                 | 201     | 2018                     |         | 7                        |  |
|-----------------|---------|--------------------------|---------|--------------------------|--|
|                 | Current | Maximum<br>credit spread | Current | Maximum<br>credit spread |  |
|                 | CHF     | CHF                      | CHF     | CHF                      |  |
| DV01 per issuer | 6,023   | < 35,000                 | 7,517   | < 35,000                 |  |

#### 11 c) (ii) Counterparty exposure limits

Counterparty exposure refers to the debt instruments within securities held for trading and relates to the risk of issuer default. The Directors have defined minimum credit ratings and maximum permitted nominal holdings per issuer for each credit rating category with a view to mitigating the default risk associated with securities.

Counterparty exposure is calculated on an aggregate basis for all securities held for trading within the treasury management portfolio, and is based on the lower of the two ratings provided by Standard & Poors and Moody's ratings agencies.

|   | 2018                        |   |                          |  | 2017                             |  |  |
|---|-----------------------------|---|--------------------------|--|----------------------------------|--|--|
|   | Nominal limit<br>per issuer | Maximum<br>exposure to<br>any one<br>issuer | Maximum<br>residual term | Maximum<br>residual term<br>of any one<br>issuer | Counterparty<br>limit per issuer | Maximum<br>exposure to<br>any one issuer |  |
|   | CHF                         | CHF   |                          |  | CHF                              | CHF                                      |  |
| Counterparty long term rating AAA                 | 100,000,000                 | 6,515,000                                   | no limit                 | 34 months  | 100,000, <b>0</b> 00             | 30,140,000                               |  |
| Counterparty long term rating between AA+ and AA- | 50,000,000                  | 42,241,500                                  | no limit                 | 57 months  | 50,000,000                       | 38,235,000                               |  |
| Counterparty long term rating between A+ and A    | 30,000,000                  | 29,946,950                                  | no limit                 | 34 months  | 30,000,000                       | 42,966,065                               |  |
| Counterparty long term rating A-                  | 30,000,000                  | 8,251,986                                   | 15 months                | 21 months  | 0                                | 6,079,410                                |  |
| Counterparty long term rating BBB+                | 15,000,000                  | 25,245,000                                  | 15 months                | 14 months  | 0                                |  |  |
| Counterparty long term rating BBB                 | 15,000,000                  | 550,000                                     | 15 months                | 6 months   | 0                                | -  |  |
| Counterparty long term rating BBB-                | 15,000,000                  |   | 15 months                | -  | 0                                | 1.1                                      |  |
| Counterparty long term rating BB+ and lower       | 0                           | -   | n/a                      | -  | 0                                | 9  |  |

The Directors have approved temporary exceptions to the counterparty limit policy in respect of the below holdings. It is the opinion of the Directors that these securities can continue to be held until their maturity or until market conditions allow for their disposal.

|          | Long term<br>rating | Nominal<br>holding<br>CHF | Residual term |
|----------|---------------------|---------------------------|---------------|
| Issuer A | BBB+                | 25,245,000                | 12 months     |
| Issuer B | A-                  | 2,615,000                 | 18 months     |
| Issuer B | Ą.                  | 5,636,986                 | 21 months     |

#### 11 c) (iii) Interest rate sensitivity limits

Interest rate sensitivity is measured by reference to Rho, which is the rate at which the price of a derivative changes relative to a change in the risk free rate of interest. It is expressed as the amount of money, per share of the underlying, that the value of the option will gain or lose as the risk free interest rate rises or falls by one basis point.

|   | 2018       |             | 2017        |             |
|---|------------|-------------|-------------|-------------|
|   | Limit      | Sensitivity | Limit       | Sensitivity |
|   | CHF        | CHF         | CHF         | CHF         |
|   |            |             |             |             |
| Effect of 1 basis point movement in risk free interest rate | +/ 100,000 | +/- 33,206  | +/- 100,000 | +/- 38,238  |

#### 11 c) (iv) Foreign currency limits

The foreign exchange sensitivity limit is the maximum permitted movement in profit or loss caused by a 1% movement in the value of the Swiss franc.

|   | 2018          |             | 2017                  |             |
|---|---------------|-------------|-----------------------|-------------|
|   | Limit         | Sensitivity | Limit                 | Sensitivity |
|   | CHF           | CHF         | CHF                   | CHF         |
| Effect of 1% movement in the value of the Swiss franc | +/- 1.000,000 | +/- 756     | +/- 1,000,00 <b>0</b> | +/ 614      |

#### 11 d) Risk mitigation

The Company uses derivatives and other financial instruments for trading purposes to manage exposures resulting from changes in credit risks, interest and foreign currency rates.

#### 11 Financial risk and management objectives and policies (continued)

#### 11 e) Credit Risk

Credit risk is the risk that the counterparty to a financial instrument will cause a financial loss to the Company by failing to discharge an obligation. The Company is exposed to the risk of credit-related loss that can occur as a result of a counterparty or issuer being unable or unwilling to honour its contractual obligations. These credit exposures exist within debt instruments, derivative assets, short term receivables and cash and cash equivalents.

Credit risk disclosures are segmented into two sections based on whether the underlying financial instrument is subject to IFRS 9's impairment disclosures or not.

#### 11 e) (i) Financial assets subject to IFRS 9's impairment requirements

The Company's only financial assets subject to the ECL model within IFRS 9 are short term trade and other receivables. At 31 December 2018, the total of short-term trade and receivables was CHF nil, on which no loss allowance has been provided (31 December 2017: total of CHF nil, on which no loss had been incurred). There is not considered to be any concentration of credit risk within these assets. No assets are considered impaired and no amounts have been written off in the period.

As all trade and other receivables are impacted by IFRS 9 ECL model the Company has adopted the simplified approach. The loss allowance shown is therefore based on lifetime ECLs.

In calculating the loss allowance, a provision matrix has been used based on historical observed loss rates over the expected life of the receivables adjusted for forward-looking estimates. Items have been grouped by their nature into the following categories: accrued income; amounts due from counterparties; and other receivables.

#### 11 e) (ii) Financial assets not subject to IFRS 9's impairment requirements

The Company is exposed to credit risk on debt instruments and derivative assets. These classes of financial assets are not subject to IFRS 9's impairment requirements as they are measured at FVTPL. The carrying value of these assets, under both IAS 39 (2017) and IFRS 9 (2018) represent the Company's maximum exposure to credit risk on financial instruments not subject to the IFRS 9 impairment requirements on the respective reporting dates. Hence, no separate maximum exposure to credit risk disclosure is provided for these instruments.

The following table analyses the sensitivity of the Company's treasury management portfolio to changes in credit spreads:

| Securities held for trading - Guernsey treasury management portfolio  |                   | 2018<br>CHF | 2017<br>CHF |
|---|-------------------|-------------|-------------|
| Market scenario:<br>1 basis point change in the difference in yields between treasury and non-treasury securities | :                 | 160,215     | 157,447     |
| The following tables analyse the Company's securities held for trading by rating agency category:                 |                   |             |             |
| Securities held for trading - Guernsey treasury management portfolio  | Fair value<br>CHF | Rating      | Allocation  |
| As at 31 December 2018:<br>Bonds receivable   | 44.775.904        | ΑΑΑ         | 3%          |

| Bonds receivable        | 44,775,904              | AAA       | 3%   |
|-------------------------|-------------------------|-----------|------|
| Bonds receivable        | 388,399,288             | AA        | 28%  |
| Bonds receivable        | 867, 110, 123           | Α         | 62%  |
| Bonds receivable        | 40,648,885              | BBB       | 3%   |
| Bonds receivable        | 52, <del>9</del> 57,728 | No rating | 4%   |
|                         | 1,393,891,928           | -         | 100% |
| As at 31 December 2017: |                         |           |      |
| Bonds receivable        | 116,045,906             | AAA       | 8%   |
| Bonds receivable        | 333,950,878             | AA        | 24%  |
| Bonds receivable        | 936,212,948             | Α         | 67%  |
| Bonds receivable        | 5,850,315               | No rating | 1%   |
|                         | 1,392,060,047           |           | 100% |

## 11 Financial risk and management objectives and policies (continued)

## 11 e) (ii) Financial assets not subject to IFRS 9's impairment requirements (continued)

| Securities held for trading - as direct hedging instruments | Fair value<br>CHF | Rating    | Allocation |
|---|-------------------|-----------|------------|
| As at 31 December 2018:                                     |                   |           |            |
| Bonds receivable  | 3,979,948         | AAA       | 6%         |
| Bonds receivable  | 853,286           | AA        | 1%         |
| Bonds receivable  | 5,670,946         | A         | 9%°        |
| 8onds receivable  | 20,702,785        | BBB       | 33%        |
| Bonds receivable  | 22,841,974        | BB        | 36%        |
| Bonds receivable  | 2,107,251         | В         | 3%         |
| Bonds receivable  | 6,444,396         | No rating | 11%        |
| Stocks held   | 275,918           |           | 1%         |
|   | 62,876,504        |           | 100%       |
| As at 31 December 2017:                                     |                   |           |            |
| Bonds receivable  | 6,398,659         | AAA       | 70.0       |
| Bonds receivable  | 1,419,816         | AA        | 2°.0       |
| Bonds receivable  | 7,869,706         | Α         | 9%         |
| Bonds receivable  | 33,204,330        | BBB       | 36%        |
| Bonds receivable  | 31,737,489        | BB        | 35%        |
| Bonds receivable  | 3,360,734         | В         | 4%         |
| Bonds receivable  | 7,632,455         | No rating | 8%         |
| Stocks held   | 96,125            |           | 0%         |
|   | 91,719,314        |           | 100%       |

The securities listed above are held as direct hedging instruments for risk management purposes and are not subject to the counterparty limits shown in note 11 c) (ii).

Concentration of credit risk within securities held for trading is managed by counterparty, geographical region and industry sector. The Company has no major exposure to any one counterparty in the treasury management portfolio (see note 11 c) (ii)).

The following table analyses the concentration of credit risk by geographical distribution (based on counterparties' country of domicile):

|                          | 2018                     |                     | 2017                     |                     |
|--------------------------|--------------------------|---------------------|--------------------------|---------------------|
|                          | % of debt<br>instruments | % of<br>derivatives | % of debt<br>instruments | % of<br>derivatives |
| Australia                | 6 %                      | 0%                  | 7%                       | 0%                  |
| China                    | 10%                      | 0%                  | 13%                      | 0%                  |
| European Union           | 39%                      | 0%                  | 38%                      | 0%                  |
| New Zealand              | 9%                       | 0%                  | 10%                      | 0%                  |
| Switzerland              | 4%                       | 100%                | 2%                       | 100%                |
| United States of America | 9%                       | 0%                  | 9%                       | 0%                  |
| Others                   | 23%                      | 0%                  | 21%                      | 0%                  |
|                          | 100%                     | 100%                | 100%                     | 100%                |

The following table analyses the concentration of credit risk in the Company's treasury management portfolio by industrial distribution:

|               | 2018                     |                     | 2017                     |                     |
|---------------|--------------------------|---------------------|--------------------------|---------------------|
|               | % of debt<br>instruments | % of<br>derivatives | % of debt<br>instruments | % of<br>derivatives |
| Financial     | 78%                      | 100%                | 71%                      | 100%                |
| Industrial    | 6%                       | 0%                  | 7%                       | 0%                  |
| Sovereign     | 6%                       | 0%                  | 8%                       | 0%                  |
| Supranational | 3%                       | 0%                  | 5%                       | 0%                  |
| Others        | 7%                       | 0%                  | 9%                       | 0%                  |
|               | 100%                     | 100%                | 100%                     | 100%                |

#### 11 Financial risk and management objectives and policies (continued)

#### 11 f) Liquidity risk

Liquidity risk is defined as the risk that the Company will encounter difficulty in meeting obligations associated with financial liabilities that are settled by delivering cash or another financial asset. Exposure to liquidity arises because of the possibility that the Company could be required to pay its liabilities earlier than expected. The Company is exposed to cash repayments of its structured product financial liabilities on a regular basis.

There is no direct matching of the maturity profiles of the structured products with the securities held, however the Company's liquidity profile is constantly monitored as an important part of the treasury management process. Liquidity risk management consists of short term (3 months) and long term (3 years) monitoring of cash flows.

The following tables show a net liquidity surplus for the next year, when the treasury management portfolio is classified according to final maturity dates. The securities held in the treasury management portfolio are primarily debt instruments which, under normal market conditions are readily convertible to cash. As such their final maturity dates are not intended to closely match the final maturity profile of financial liabilities held at FVTPL:

|  | 2018<br>Up to<br>one year<br>CHF | 2018<br>From one to<br>two years<br>CHF | 2018<br>From two to<br>three years<br>CHF | 2018<br>From three to<br>four years<br>CHF | 2018<br>From four to<br>five years<br>CHF | 2018<br>Five years<br>and over<br>CHF | 31 December<br>2018<br>Total<br>CHF |
|--|----------------------------------|---|---|--|---|---------------------------------------|-------------------------------------|
| Assets   |                                  |   |   |  |   |                                       |                                     |
| Cash, amounts due from banks, money at call      | 60,031,606                       | -                                       | -   | -  | -   | -                                     | 60,031,606                          |
| Accrued interest receivable and prepayments      | 9,540,952                        | -                                       |   |  | ÷.  | -                                     | 9,540,952                           |
| Securities held for trading, designated at FVTPL | 612,311,315                      | 682,480,871                             | 113,826,971                               | 7,716,459                                  | 5,277,179                                 | 35,155,637                            | 1,456,768,432                       |
| Derivative financial instruments held at FVTPL   | 3,622,066                        | 4,817,544                               | 865,683                                   | 1,082,786                                  | 946,192                                   | 6,134,588                             | 17,468,859                          |
| Liabilities                                      |                                  |   |   |  |   |                                       |                                     |
| Amounts due to banks                             | (41,294,977)                     | -                                       | -   | -  | -   |                                       | (41,294,977)                        |
| Accrued interest payable and accrued expenses    | (1,711,256)                      | -                                       | -   |  | -   |                                       | (1,711,256)                         |
| Derivative financial instruments held at FVTPL   | (121,822,626)                    | (33,791,101)                            | (8,205,209)                               | (2,467,801)                                | (546,062)                                 | (2,059,560)                           | (168,892,359)                       |
| Financial liabilities held at FVTPL              | (633,465,479)                    | (388,006,013)                           | (126,380,066)                             | (11,957,929)                               | (33,286,560)                              | (37,065,056)                          | (1,230,161,103)                     |
| Net Liquidity                                    | (112,788,399)                    | 265,501,301                             | (19,892,621)                              | (5,626,485)                                | (27,609,251)                              | 2,165,609                             | 101,750,154                         |

The undiscounted contractual liabilities of the Company excluding accrued interest at 31 December 2018 are as follows:

| Financial liabilities held at fair value         |               |               |               |               |              |              |                       |
|--|---------------|---------------|---------------|---------------|--------------|--------------|-----------------------|
| through profit or loss                           | 727,936,863   | 412,335,039   | 132,941,671   | 12,344,400    | 35,782,474   | 38,309,875   | 1,359,650,322         |
|  |               |               |               |               |              |              |                       |
|  | 2017          | 2017          | 2017          | 2017          | 2017         | 2017         | 31 December           |
|  | Up to         | From one to   | From two to   | From three to | From four to | Five years   | 2017                  |
|  | one year      | two years     | three years   | four years    | five years   | and over     | Total                 |
|  | CHF           | CHF           | CHF           | CHF           | CHF          | CHF          | CHF                   |
| Assets   |               |               |               |               |              |              |                       |
| Cash, amounts due from banks, money at call      | 63,461,078    |               |               |               |              |              | 63,461,078            |
| Accrued interest receivable and prepayments      | 9,057,267     |               | -             |               |              | 1.1          | 9,057,267             |
| Securities held for trading, designated at FVTPL | 778,454,871   | 468,941,680   | 142,525,818   | 38,237,411    | 8,192,338    | 47,427,243   | 1,483,779,361         |
| Derivative financial instruments held at FVTPL   | 5,132,912     | 5,262,478     | 4,699,994     | 1,020,951     | 1,200,096    | 9,136,844    | 26,453,275            |
| Liabilities                                      |               |               |               |               |              |              |                       |
| Amounts due to banks                             | (51,683,345)  | -             |               |               | ×.           |              | ( <b>51</b> ,683,345) |
| Accrued interest payable and accrued expenses    | (1,798,025)   |               |               |               |              |              | (1,798,025)           |
| Derivative financial instruments held at FVTPL   | (23,847,226)  | (8,990,887)   | (7,781,907)   | (1,168,437)   | (1,508,455)  | (772,002)    | (44,068,914)          |
| Financial liabilities held at FVTPL              | (638,587,504) | (334,708,014) | (296,698,899) | (57,166,273)  | (11,236,353) | (43,835,106) | (1,382,232,149)       |
| Net Liquidity                                    | 140,190,028   | 130,505,257   | (157,254,994) | (19,076,348)  | (3,352,374)  | 11,956,979   | 102,968,548           |

The undiscounted contractual liabilities of the Company excluding accrued interest at 31 December 2017 are as follows:

Financial liabilities held at fair value through profit or loss

| hrough profit or loss | 629,853,873 | 328,963,143 | 300,096,877 | 56,180,033 | 11,088,835 | 42,608,620 | 1,368,791,381 |
|-----------------------|-------------|-------------|-------------|------------|------------|------------|---------------|
|                       |             |             |             |            |            |            |               |

#### 11 g) Market risk

Market risk is the risk that the fair value or future cash flows of financial instruments will fluctuate due to changes in market variables such as interest rates, foreign exchange rates and equity prices. The maximum risk resulting from financial instruments, except for written equity-linked derivatives, equals their fair value. With written equity-linked derivatives, the Company bears the market risk of an unfavourable change in the price of the security underlying the option.

#### 11 Financial risk and management objectives and policies (continued)

#### 11 g) (i) Interest rate risk

Interest rate risk arises from the possibility that changes in interest rates will affect future cash flows or the fair value of financial instruments. The Company writes interest rate derivatives, mainly being interest rate swaps in which the Company agrees to exchange, at specified intervals. The difference between fixed and variable interest amounts is calculated by reference to an agreed-upon notional principal amount in an effort to manage these risks. The majority of interest rate exposure arises on investment in debt securities and the interest rate profile is shown below.

The following table analyses the Company's interest rate exposure. The Company's assets and liabilities are included at their carrying amount and are categorised by their maturity dates:

|   |                  |                      |               | No net interest    |
|---|------------------|----------------------|---------------|--------------------|
|   | Total            | Variable rate        | Fixed rate    | rate risk          |
| The interest rate profile of the Company at 31 December 2018: | CHF              | CHF                  | CHF           | CHF                |
| Assets  |                  |                      |               |                    |
| Cash, amounts due from banks, money at call                   | 60,031,606       | 471,854              | ×.            | 59,559,752         |
| Accrued interest receivable and prepayments                   | 9,540,952        | -                    |               | 9,540,952          |
| Securities held for trading, designated at FVTPL              | 1,456,768,432    | 238,922,885          | 1,217,569,629 | 275,918            |
| Derivative financial instruments held at FVTPL                | 17,468,859       | 8,991,171            | -             | 8,477,688          |
| Total Assets  | 1,543,809,849    | 248,385,910          | 1,217,569,629 | 77,854,310         |
| Liabilities and Shareholder's funds                           |                  |                      |               |                    |
| Amounts due to banks  | 41,294,977       |                      |               | 41,294,977         |
| Accrued interest payable and accrued expenses                 | 1,711,256        | -                    |               | 1,711,256          |
| Derivative financial instruments held at FVTPL                | 168,892,359      | 9,271,188            | -             | 159,621,171        |
| Structured product financial liabilities held at FVTPL        | 1,230,161,103    | 9,746,285            |               | 1,220,414,818      |
| Share capital   | 1,000,000        |                      |               | 1,000,000          |
| Retained earnings   | 100,750,154      |                      |               | 100,750,154        |
| Total Liabilities and Shareholder's Funds                     | 1,543,809,849    | 19,017,473           | -             | 1,524,792,376      |
|   |                  |                      |               | No net interest    |
|   | Total            | Variable rate        | Fixed rate    | rate risk          |
| The interest rate profile of the Company at 31 December 2017: | CHF              | CHF                  | CHF           | CHF                |
| Assets  |                  |                      |               |                    |
| Cash, amounts due from banks, money at call                   | 63,461,078       | 672,059              |               | 62,789,019         |
| Accrued interest receivable and prepayments                   | 9,057,267        |                      |               | 9,057,267          |
| Securities held for trading, designated at FVTPL              | 1,483,779,361    | 259,826, <b>96</b> 3 | 1,212,207,268 | 11,745,130         |
| Derivative financial instruments held at FVTPL                | 26,453,275       | 11,484, <b>48</b> 5  |               | 14,968,790         |
| Total Assets  | 1,582,750,981    | 271,983,507          | 1,212,207,268 | <b>98</b> ,560,206 |
| Liabilities and Shareholder's funds                           |                  |                      |               |                    |
| Amounts due to banks  | 51,683,345       | 4                    | -             | 51,683,341         |
| Accrued interest payable and accrued expenses                 | 1,798,025        |                      |               | 1,798,025          |
| Derivative financial instruments held at FVTPL                | 44,068,914       | 11,919,036           | -             | 32,149,878         |
| Structured product financial liabilities held at FVTPL        | 1, 230, 161, 104 | 9,746,286            |               | 1,220,414,818      |
| Share capital   | 1,000,000        |                      |               | 1,000,000          |
| Retained earnings   | 101,968,548      | •                    | 5             | 101,968,548        |
| Total Liabilities and Shareholder's Funds                     | 1,430,679,936    | 21,665,326           |               | 1,409,014,610      |

#### 11 g) (ii) Currency risk

Currency risk is the risk that the value of a financial instrument will fluctuate due to changes in foreign exchange rates. The Company invests in securities and issues structured products that are denominated in currencies other than the Swiss franc. Accordingly, the value of the Company's assets and liabilities may be affected favourably or unfavourably by fluctuations in currency rates.

The Company writes derivatives, such as currency forwards, to hedge foreign currency denominated financial instruments and increases or decreases in the fair value of the Company's foreign currency denominated financial assets and liabilities are partially offset by gains and losses on the economic hedging instruments.

The following table indicates the currencies to which the Company had significant exposure as at 31 December on its monetary assets and liabilities.

## 11 Financial risk and management objectives and policies (continued)

#### 11 g) (ii) Currency risk (continued)

Currency profile of the Company as at 31 December 2018:

| Currency profile of the Company as at 31 December 2018: |               |                           |                     |             |               |              |
|---|---------------|---------------------------|---------------------|-------------|---------------|--------------|
|   | Total         | Swiss Franc               | Euro                | US Dollar   | British Pound | Other<br>CHF |
|   | CHF           | CHF                       | CHF                 | CHF         | CHF           | CHF          |
| Assets<br>Cash, amounts due from banks, money at call   | 60,031,606    | 56,586,765                |                     |             | 3, 179, 547   | 265,294      |
| Accrued interest receivable and prepayments             |               | 5,780,189                 | 1,886,535           | 1,479,152   | 269,483       | 125,593      |
| Securities held for trading, designated at FVTPL        | 9,540,952     |                           | 311,874,408         | 213,570,403 | 8,738,000     | 8,758,992    |
| Derivative financial instruments held at FVTPL          | 1,456,768,432 | 913,826,629<br>11,217,314 | 2,763,948           | 3,325,528   | 136,485       | 25,584       |
| Derivative mnancial instruments neid at rv irc          | 17,468,859    | 11,217,314                | 2,763,940           | 5,525,520   | 130,405       | 25,564       |
| Total Assets  | 1,543,809,849 | 987,410,897               | 316,524,891         | 218,375,083 | 12,323,515    | 9,175,463    |
|   | 100.00%       | 63.96%                    | 20.50%              | 14.15%      | 0.80%         | 0.59%        |
| Liabilities   |               |                           |                     |             |               |              |
| Amounts due to banks                                    | 41,294,977    | 12,640,103                | 21,581,815          | 6,575,535   | 411,858       | 85,666       |
| Accrued interest payable and accrued expenses           | 1,711,256     | 1,473,693                 |                     |             | 237,563       |              |
| Derivative financial instruments held at FVTPL          | 168,892,359   | 127,943,800               | 29,569,045          | 11,379,514  |               |              |
| Structured product financial liabilities held at FVTPL  | 1,230,161,103 | 747,496,812               | 267,247,486         | 208,413,410 | 1,780,755     | 5,222,640    |
| Tota! Liabilities                                       | 1,442,059,695 | 889,554,408               | 318,398,346         | 226,368,459 | 2,430,176     | 5,308,306    |
|   | 100.00%       | 61.69%                    | 22.08%              | 15.70%      | 0.17%         | 0.37%        |
| Currency profile of the Company as at 31 December 2017: |               |                           |                     |             | Australian    |              |
| Currency prome of the Company as at 51 December 2017.   | Total         | Swiss Francs              | Euro                | uS Dollar   | Dollar        | Other        |
| Assets  | CHF           | CHF                       | CHF                 | CHF         | CHF           | CHF          |
| Cash, amounts due from banks, money at call             | 63,461,078    | 58,033,181                |                     | 403,157     | 1             | 5,024,740    |
| Accrued interest receivable and prepayments             | 9,057,267     | 5,227,626                 | 2,177,518           | 949,003     | 109,824       | 593,296      |
| Securities held for trading, designated at FVTPL        | 1,483,779,361 | 898,506,088               | 388,304,826         | 170,421,310 | 3,146,568     | 23,400,569   |
| Derivative financial instruments held at FVTPL          | 26,453,275    | 19,310,860                | 4,955,460           | 1,969,101   | 65,536        | 152,318      |
| Total Assets  | 1,582,750,981 | 981,077,755               | 395,437,804         | 173,742,571 | 3,321,928     | 29,170,923   |
|   | 100.00%       | 61.99%                    | 24.98%              | 10.97%      | 0.21%         | 1.84%        |
|   |               |                           |                     |             |               |              |
| Liabilities   | <b>-</b>      |                           |                     |             |               |              |
| Amounts due to banks                                    | 51,683,345    | 17,100,891                | 33,653,143          |             | 421,566       | 507,745      |
| Accrued interest payable and accrued expenses           | 1,798,025     | 1,254,821                 | 260,421             | 4,927       | +             | 277,856      |
| Derivative financial instruments held at FVTPL          | 44,068,914    | 27,375,613                | 11,783,834          | 4,530,158   |               | 379,309      |
| Structured product financial liabilities held at FVTPL  | 1,382,232,149 | 840,665,292               | 350,325,26 <b>9</b> | 181,185,491 | 1,966,906     | 8,089,191    |
| Total Liabilities                                       | 1,479,782,433 | 886,396,617               | 396,022,667         | 185,720,576 | 2,388,472     | 9,254,101    |
|   | 100.00%       | 59.90%                    | 26.76%              | 12.55%      | 0.16%         | 0.63%        |
|   |               |                           |                     |             |               |              |

#### 11 g) (iii) Price risk

Equity price risk is the risk of unfavourable changes in the fair value of equity instruments or equity-linked derivatives as a result of changes in the levels of equity indices and the value of individual shares. The Company manages equity risk on its exposure to equity-linked structured products by writing equity-linked derivatives as a hedge against the movement in their price. The Company is therefore only exposed to equity price risk on the revaluation of equities purchased to meet obligations under equity-settled structured product liabilities which are valued based on the equity purchase price and are therefore subsequently settled at nil gain/loss.

Management's best estimate of the effect on profit or loss for a year due to a reasonably possible change in equity indices, with all other variables held constant, is indicated in the table below. There is no effect on other comprehensive income as the Company has no assets classified as fair value through other comprehensive income (2017: as available for sale under IAS 39) or designated hedging instruments. In practice the actual trading results may differ from the sensitivity analysis below and the difference could be material. An equivalent decrease in equity indices as shown below would have resulted in an equivalent, but opposite, impact.

## ZÜRCHER KANTONALBANK FINANCE (GUERNSEY) LIMITED NOTES TO THE FINANCIAL STATEMENTS For the year ended 31 December 2018

#### 11 Financial risk and management objectives and policies (continued)

| 11 g) (iii) Price risk (continued) | Change in    | Effect on net income | e for the year |
|------------------------------------|--------------|----------------------|----------------|
|                                    | equity index | 2018                 | 2017           |
|                                    | %            | CHF                  | CHF            |
| Stoxx Europe 600 Index             | +/- 10       | +/- 7,370            | 101            |
| Swiss All Share Index              | +/- 10       | +/- 20,221           | +/- 9,613      |

The effect of changes in bond prices resulting from variations in interest rates are quantified in notes 11 c) (iii) and 11 g) (i).

#### 12 Cash, amounts due from / to banks, money at call

|  | 2018         | 2017         |
|--|--------------|--------------|
|  | CHF          | CHF          |
| Due from banks, Guernsey                                   | 471,854      | 672,059      |
| Due from banks, Zürcher Kantonalbank                       | 59,559,752   | 62,789,019   |
|  | 60,031,606   | 63,461,078   |
| Due to banks, European Union - other                       |              | (4)          |
| Due to banks, Zürcher Kantonalbank                         | (41,294,977) | (51,683,341) |
|  | (41,294,977) | (51,683,345) |
| Total net cash, amounts due from / to banks, money at call | 18,736,629   | 11,777,733   |

The amounts due from banks in Guernsey accrue interest income at variable market rates. The amounts due to and from Zürcher Kantonalbank do not accrue interest. The amounts due to banks in the European Union - other accrued interest income at variable market rates.

#### 13 Share capital

|  | 2018<br>CHF | 2017<br>CHF |
|--|-------------|-------------|
| Authorised<br>1,000 Ordinary shares of CHF1,000 each                         | 1,000,000   | 1,000,000   |
| Allotted, called up and fully paid<br>1,000 Ordinary shares of CHF1,000 each | 1,000,000   | 1,000,000   |

Each holder of a fully paid ordinary share is entitled to one vote for each share owned. When and as dividends are declared upon the ordinary share capital of the Company, the holders of ordinary shares are entitled to share equally, share for share, in such dividends. In the event of liquidation of the Company, the holders of ordinary shares shall be entitled to receive any of the remaining assets of the Company after the distribution of all prefered amounts. The amount distributed will be in proportion to the number of equity shares held by the shareholders.

#### 14 Capital management

The Company considers its capital to comprise its share capital and retained earnings which amounted CHF 101,750,154 as at 31 December 2018 (2017: CHF 102,968,548). The Company's capital management objectives are to achieve consistent returns while safeguarding capital and to maintain sufficient liquidity to meet the expenses of the Company and to meet its liabilities as they arise.

To achieve the above objectives, the Company invests in term deposits with group approved banks and bonds with an appropriate credit rating (see note 11).

The Company is not subject to externally imposed capital requirements and has no restrictions on the issue or repurchase of ordinary shares.

#### 15 Related party disclosures

#### Parent and ultimate controlling party

The immediate and ultimate parent undertaking is Zürcher Kantonalbank, a Company incorporated in Switzerland.

#### 15 Related party disclosures (continued)

#### Transactions with related parties

The following table provides the total amount of transactions that have been entered into with related parties for the relevant financial year:

|  |      | Income<br>Year ended<br>31 December<br>CHF | Expenses<br>Year ended<br>31 December<br>CHF | Due to<br>related party<br>31 December<br>CHF | Due from<br>related party<br>31 December<br>CHF |
|--|------|--|--|---|---|
| Parent:                                    |      |  |  |   |   |
| Zürcher Kantonalbank                       | 2018 | 12,659,027                                 | 11,046,727                                   | 941,502                                       |   |
|  | 2017 | 19,795,283                                 | 11,768,708                                   | 1,515,241                                     |   |
| Bank accounts held with parent Company     | 2018 |  |  | 41,294,977                                    | 59,559,752                                      |
|  | 2017 | -  |  | 51,683,345                                    | 62,789,019                                      |
| Derivative contracts with parent Company   | 2018 |  |  | 168,892,359                                   | 17,468,859                                      |
|  | 2017 |  |  | 44,068,914                                    | 26,453,275                                      |
| Structured products held by parent Company | 2018 | -  | -  | 110,010,886                                   | -   |
|  | 2017 |  | 1.0  | 212,823,251                                   |   |
| Other related parties:                     |      |  |  |   |   |
| Butterfield Trust (Guernsey) Limited       | 2018 |  | 644,973                                      | 156,939                                       |   |
|  | 2017 |  | 640,729                                      | 164,781                                       |   |

#### Terms and conditions of transactions with related parties

All related party transactions are considered to have been made on terms equivalent to those that prevail in arm's length transactions. Outstanding balances at the year end are unsecured and interest free and settlement occurs in cash. There have been no guarantees provided or received for any related party receivables or payables.

#### Transactions with key management personnel

Key management personnel, defined as the Board of Directors and Chief Executive Officer, received the following compensation during the year:

| Year ended                           | Year ended  |
|--------------------------------------|-------------|
| 31 December                          | 31 December |
| 2018                                 | 2017        |
| CHF                                  | CHF         |
| Short-term employee benefits 189,793 | 180,438     |

#### **Other Directors' interests**

Mr PDH Hodgson is a Director of Butterfield Trust (Guernsey) Limited, who act as administrators for Zürcher Kantonalbank Finance (Guernsey) Limited. Details of the fees paid to Butterfield Trust (Guernsey) Limited for services rendered are shown in the above table.

#### 16 Events after the statement of financial position date

There were no events after the reporting period that affect the amounts reported or require disclosure.

Annex 3

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Keep-Well Agreement between Zürcher Kantonalbank and Zürcher Kantonalbank Finance (Guernsey) Limited



## **KEEP-WELL AGREEMENT**

Agreement dated: May 31, 2010 (this Agreement shall entirely replace the previous Agreement dated as of May 2, 2001) between Zürcher Kantonalbank (the Parent) and Zürcher Kantonalbank Finance (Guernsey) Limited (the Subsidiary).

WHEREAS the Parent owns directly all the capital stock of the Subsidiary and

WHEREAS the Subsidiary plans to incur indebtedness, liabilities and obligations to third parties from time to time for interest rate and currency swap transactions as well as for other financial transactions including but not limited to structured products such as "RUNNERs" and "PROTEINs" and others (all such forms of indebtedness, liabilities and obligations being herein referred to as "Debt").

NOW, THEREFORE the Subsidiary and the Parent agree as follows:

- 1. <u>Stock ownership of the Subsidiary</u>. As long as there is any Debt outstanding, the Parent shall directly or indirectly own and hold the legal title to and beneficial interest in all the outstanding shares of stock of the Subsidiary having the right to vote for the election of members of the Board of Directors of the Subsidiary and will not directly or indirectly pledge or in any other way encumber or otherwise dispose of any such shares of stock, unless required to dispose of any or all such shares of stock pursuant to a court decree or order of any governmental authority which, in the opinion of counsel to the Subsidiary, may not be successfully challenged.
- 2. <u>Maintenance of a liquidity reserve designated for fulfillment of payment obligations</u> on Debt issued under any law other than German law. The Parent agrees that it shall cause the Subsidiary to maintain a liquidity reserve designated for payment obligations on Debt issued under any law other than German law of at least CHF 1'000'000.00 (Swiss Francs one million) or its equivalent in another currency, at all times. If the Subsidiary at any time will run short of cash or other liquid assets to meet any payment obligation on its Debt issued under any law other than German law then or subsequently to mature and shall have insufficient unused commitments then the Subsidiary will promptly notify the Parent of the shortfall and the Parent will make available to the Subsidiary, before the due date of any such payment obligation, funds sufficient to enable it to fulfil any such payment obligation in full as it falls due. The Subsidiary will use the funds made available to it by the Parent solely for the payment at maturity of its Debt issuance under any law other than German law.

- 3. <u>Waiver</u>. The Parent hereby waives any failure or delay on the part of the Subsidiary in asserting or enforcing any of its rights or in making any claims or demands hereunder.
- 4. <u>Not a guarantee</u>. This agreement is not, and nothing herein contained and nothing done pursuant hereto by the Parent shall be deemed to constitute a guarantee, direct or indirect, by the Parent of any Debt or other obligation arising out of a swap or other transaction, indebtedness or liability, of any kind or character whatsoever, of the Subsidiary.

The Subsidiary has undertaken that, whenever it incurs any Debt, it will in advance in the documentation for the borrowing directed to noteholders or other lenders properly refer to this agreement and in particular include information substantially in accordance with Schedule I hereto.

- 5. <u>Modification amendment or termination</u>. This Agreement may be modified, amended or terminated only by the written agreement of the Parent and the Subsidiary, provided, however, that no such modification, amendment or termination shall have any adverse effect upon any holder of any Debt of the Subsidiary outstanding at the time of such modification, amendment or termination. The Parent and the Subsidiary agree that they shall give written notice to each statistical rating agency that has issued a rating in respect of the Subsidiary or any of its obligations, at least 30 days prior to making any modification, amendment or termination of this Agreement.
- 6. <u>Bankruptcy</u>, <u>liquidation or moratorium</u>. Any rights and obligations which either of the parties has under this Agreement will remain valid and binding notwithstanding any bankruptcy or liquidation of, or moratorium involving, the Subsidiary.
- 7. <u>Successors</u>. The agreements herein set forth shall be mutually binding upon, and inure to the mutual benefit of, the Parent and the Subsidiary and their respective successors.
- 8. <u>Governing law</u>. This agreement shall be governed by **the laws of Switzerland**.

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be executed and delivered by their respective officers thereunto duly authorised as of the day and year first above written.

Zürcher Kantonalbank

Dr. Philipp Halbherr Head Investment Banking

actrouledged

Dr. Stenhanins Isele , VRP ZUBG

Christoph Theler Deputy Head Investment Banking

## <u>General</u>

The Subsidiary is directly wholly owned Subsidiary of the Parent.

## Keep-Well Agreement

The Subsidiary and the Parent have entered into a keep-well agreement dated as of May 31, 2010 (the "Keep-Well Agreement") and governed by the laws of Switzerland. The following is a summary of certain of the terms of the Keep-Well Agreement, a copy of which is available for inspection in connection the prospectus of any issued structured products and/or Debt.

- (i) The Parent will own, directly or indirectly, all the outstanding capital stock of the Subsidiary so long as the Subsidiary has any indebtedness, liabilities or obligations for interest rate or currency swap transactions or for other financial transactions entered into by the Subsidiary with parties other than the Parent (all such forms of indebtedness, liabilities and obligations being herein referred to as "Debt").
- (ii) The Parent agrees that it shall cause the Subsidiary to maintain a liquidity reserve designated for payment obligations on Debt issued under any law other than German law of at least CHF 1'000'000.00 (Swiss Francs one million) or its equivalent in another currency, at all times.
- (iii) If the Subsidiary at any time will run short of cash or other liquid assets to meet any payment obligation on its Debt issued under any law other than German law then or subsequently to mature and shall have insufficient unused commitments then the Subsidiary will promptly notify the Parent of the shortfall and the Parent will make available to the Subsidiary, before the due date of any such payment obligation, funds sufficient to enable it to fulfil any such payment obligation in full as it falls due. The Subsidiary will use the funds made available to it by the Parent solely for the payment at maturity of its Debt issuance under any law other than German law.

The Keep-Well Agreement provides that it may be modified, amended or terminated by the written agreement of the Parent and the Subsidiary at any time, provided, however, that no such modification, amendment of termination shall have any adverse effect upon any holder of any Debt of the Subsidiary outstanding at the time of such modification, amendment or termination.

The Parent and the Subsidiary have agreed that they shall give written notice to each statistical rating agency that has issued a rating in respect of the Subsidiary or any of its obligations, at least 30 days prior to making any modification, amendment of termination of the Keep-Well Agreement.

The Keep-Well Agreement is not a guarantee by the Parent of the payment of any indebtedness, liability or obligation of the Subsidiary. Holders of notes or other Debt are not parties to the Keep-Well Agreement. The only parties to the Keep-Well Agreement are the Subsidiary and the Parent. Consequently, the Keep-Well Agreement does not confer to any note holders or holders of other Debt any rights or claims against the Parent. The Keep-Well Agreement will not be enforceable against the Parent. The Keep-Well Agreement will not be enforceable against the Parent by anyone other than the Subsidiary (and/or its liquidator or administrator in the event of bankruptcy or, as the case may be, moratorium). In the event of a breach by the Parent in performing a provision of the Keep-Well Agreement and of the insolvency of the Subsidiary while any notes or other Debt were outstanding, the remedies of note holders or holders of other Debt could include the acceleration of the Debt (if it has not already matured) and (if the Debt remained unpaid and unless such a proceeding had already been commenced by another creditor of the Subsidiary) the filing as a creditor of the Subsidiary of a petition for the winding-up of the Subsidiary, with a view to the liquidator (appointed by the competent court) pursuing the Subsidiary's rights under the Keep-Well Agreement against the Parent. The granting of a winding-up order would be in the discretion of the court and might be delayed by the grant of a moratorium order, in which event the Subsidiary's rights against the Parent would be exercisable by the court-appointed administrator and the managing directors of the Subsidiary jointly.

Financial and other information concerning the Parent is provided for background purposes only in view of the importance to the Subsidiary of the Keep-Well Agreement: it should not be treated as implying that the Keep-Well Agreement can be viewed as a guarantee. Annex 4A

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**Template Final Terms for Warrants** 

THIS IS A NON-BINDING ENGLISH TRANSLATION OF THE ISSUERS' "EMISSIONSPROGRAMM" DATED 15 APRIL 2019 AND PUBLISHED IN GERMAN. THE GERMAN TEXT SHALL BE CONTROLLING AND BINDING. THE ENGLISH LANGUAGE TRANSLATION IS PROVIDED FOR CONVENIENCE ONLY.

# **ANNEX 4A**

# **Template Final Terms for Warrants**

| for Warrants (incl. Knock-out Wa                      | arrants)   |
|---|--|
| NAME OF THE PRODUCT                                   |  |
| Terms and Conditions                                  |  |
| 1. Product Description                                |  |
| Product Category/Name                                 | [Leverage Products]/[Leverage Products with Knock-<br>Out]/[•], in accordance to the Swiss Derivative Map<br>provided by the Swiss Structured Products Association of<br>[•]   |
| CISA Notification                                     | These Warrants do not constitute a collective<br>investment scheme within the meaning of the Swiss<br>Federal Act on Collective Investment Schemes (CISA)<br>and are not subject to authorisation or supervision by<br>FINMA. The issuer risk is borne by investors.   |
| Key Elements of the Product                           | The Investor benefits both from a [rising][falling] Underlying<br>and [marginally] from the rising volatility of the Underlying.<br>[The investor has the right (not the obligation) to [buy (call)]<br>[sell (put)] the Underlying against payment of the Exercise<br>Price [during the exercise period (American)][on expiration<br>date (European)].<br>Warrants are appropriate for Investors with a high risk<br>tolerance who invest the Issue Price in order to speculate<br>on the future performance of the Underlying or to hedge a<br>portfolio against market fluctuations. Due to the Leverage,<br>the potential return from the amount invested is<br>disproportionately higher than a direct investment in the<br>Underlying. [Knock-out warrants are similar to Warrants<br>with no Knock-Out feature. If during the life time of the<br>Knock-Out Warrant the Underlying lies at or [below][above<br>] the Knock-out Price, the Warrant expires immediately and<br>worthless. |
| lssuer  | Zürcher Kantonalbank, Zürich   |
| Rating of the Issuer                                  | Standard & Poor's AAA, Moody's Aaa, Fitch AAA  |
| Paying Agent, Exercise Agent and<br>Calculation Agent | Zürcher Kantonalbank, Zürich   |
| Symbol/Swiss Security Code /ISIN                      | [•]  |
| Number of Warrants/Trading<br>Units                   | Up to [•] Warrants, with the right to increase/1 Warrant or a multiple thereof   |

| Minimum Exercise Amount            | [•] Warrant(s) or a multiple thereof  |
|------------------------------------|---|
| Exercise Price                     | [•]   |
| [Knock-out Price                   | [•]]  |
| Currency                           | [•]   |
| Underlying                         | [•]   |
| Ratio                              | <ul> <li>Warrants are entitled to buy the Underlying. There will<br/>be no automatic exercise.</li> </ul>   |
| Issue Price                        | [•]   |
| [Reference Price of the Underlying | [•]]  |
| Implied Volatility                 | [•]%  |
| Exercise Style                     | [•]   |
| [Exercise Right                    | Possible during the entire Exercise Period.<br>A number of Warrants (determeined by the ratio) entitles<br>to purchase/to sale 1 Underlying at the strike price.<br>Payments/deliveries are due 5 bank working days after the<br>exercise date.<br>If the exercise is suspended, the investor will receive a cash<br>value. The exercise of the Warrants shall be made through<br>the custodian bank.<br>Exercise Agent: Zürcher Kantonalbank, Asset Servicing,<br>Postfach, 8010 Zürich, Tel.: +41 44 292 98 94, E-Mail:<br>corporateactions@zkb.ch] |
| [Exercise Period                   | [•]]  |
| Type of Settlement                 | [Cash Settlement][Physical Delivery]  |
| [Premium                           | <ul> <li>[•] % ([•] % p.a.)</li> <li>The premium indicates how much the Underlying's price<br/>must rise/fall until expiry for the investment to break-even]</li> </ul>   |
| [Initial Leverage                  | <ul> <li>[•] (Reference price Underlying, divided by Ratio, divided by<br/>Issue Price)]</li> </ul>   |
| Payment Date                       | [•]   |
| Listing                            | Application to list on the SIX Swiss Exchange will be filed, the provisory first trading day is $[\bullet]$   |
| Expiry Date                        | [•]   |
| Last Trading Date                  | [•]   |
| Clearing house                     | SIX SIS AG  |
| Taxes                              | [•]   |
|                                    | The information above is a summary only of the Issuer's<br>understanding of current law and practice in Switzerland<br>relating to the taxation of this series of Derivatives. The  |

|                               | relevant tax law and practice may change. The Issuer does<br>not assume any liability in connection with the above<br>information. This general information cannot replace the<br>individual investor's consultation with their own tax<br>advisors.  |
|-------------------------------|---|
| Documentation                 | This document constitutes the Final Terms in accordance to<br>article 21 of the Additional Rules for the Listing of<br>Derivatives of the SIX Swiss Exchange. These Final Terms<br>supplement the Issuance Programme of the Issuer dated 15<br>April [•] and published in German in the currently valid<br>version. These Final Terms and the Issuance Programme<br>constitute the complete Issuance and Listing Prospectus for<br>this issuance (the 'Listing Prospectus'). Except as otherwise<br>defined in these Final Terms, capitalised terms used in these<br>Final Terms have the meaning as defined in the Glossary in<br>the Issuance Programme. In case of discrepancies between<br>information or the provisions in these Final Terms and<br>those in the Issuance Programme, the information and<br>provisions in these Final Terms shall prevail. Warrants will<br>be issued as uncertified rights (Wertrechte) and registered<br>as book entry securities (Bucheffekten) with SIX SIS AG.<br>Investors have no right to require the issuance of any<br>certificates or proves of evidence for the Structured<br>Products. These Final Terms and the Issuance<br><b>Programme can be ordered free of charge at Zürcher<br/>Kantonalbank, Bahnhofstrasse 9, 8001 Zurich, dept.</b><br><b>VRIE or by e-mail at documentation@zkb.ch.</b> This<br>document is not a prospectus in accordance with articles<br>652a or 1156 of the Swiss Code of Obligations. |
| Information on the Underlying | Information on the performance of the Underlying/<br>Underlying components is publicly available on<br>www.bloomberg.com. [Current annual reports are<br>published on the website of the respective business<br>entity/index provider. The transfer of the Underlying/<br>Underlying components is conducted in accordance with<br>their respective statutes.]  |
| Notices                       | Any notice by the Issuer in connection with this series of<br>Warrants, in particular any notice in connection with<br>modifications of the terms and conditions will be validly<br>published on the website https://zkb-<br>finance.mdgms.com/products/Warrants/index.html under<br>the relevant series of Warrants. The Swiss security code<br>search button will lead you directly to the relevant<br>derivatives. The notices will be published in accordance<br>with the rules issued by SIX Swiss Exchange for IBL (Internet<br>Based Listing) on the website https://www.six-exchange-<br>regulation.com/en/home/publications/official-notices.html  |
| Governing Law/Jurisdiction    | Swiss Law/Zurich  |

## 2. Profit and Loss Expectation at Maturity

| Profit and Loss Expectation at | Warrants provide an opportunity to profit from changes in   |
|--------------------------------|---|
| Maturity                       | the Underlying asset through leverage. Profit Expecatations |
|                                | for Call/Put Warrants are basically unlimited; Loss         |
|                                | Expectations are limited to the invested capital. The value |
|                                |   |

of a Call Warrant generally falls as the price of the Underlying declines. The value of a Put Warrant generally falls as the price of the Underlying rises. The value of a Warrant changes more than the value of the Underlying, owing to the leverage effect. The value of a Warrant can fall even if the value of the Underlying remains unchanged, because of a lower time value or an unfavourable shift in supply and demand.

### 3. Material Risks for Investors

| Issuer Risk             | Obligations under this Warrant constitute direct,<br>unconditional and unsecured obligations of the Issuer and<br>rank pari passu with other direct, unconditional and<br>unsecured obligations of the Issuer. The value of a Warrant<br>depends not only on the performance of the Underlying<br>asset and other developments in the financial markets, but<br>also on the solvency of the Issuer, which may change<br>during the term of these Warrants.   |
|-------------------------|--|
| Specific Product Risiks | Warrants entail the risk to lose the initial capital (Issue<br>Price) entirely. They are only suitable for investors who<br>have the requisite knowledge and experience and<br>understand thoroughly the risks connected with an<br>investment in these Warrants and are capable of bearing<br>the economic risks.<br>If the Warrants are in a different Currency to that oft he<br>Underlying, the investor shall bear all exchange rate risks<br>between the product Currency and the Currency of the<br>Underlying. Warrants do not generate continuous income.<br>If the price of the Underlying rises/falls and/or there is an<br>decrease in volatility, a Call/Put-Warrant usually drops in<br>value and becomes worthless when it expires at the end of<br>its term. The maximum risk is therefore the loss of the<br>amount invested. |

#### 4. Additional Terms

Modifications

If an Extraordinary Event as described in Section IV of the Issuance Programme occurs in relation to the Underlying / a component of the Underlying or if any other extraordinary event (force majeure) occurs, which makes it impossible or particularly cumbersome for the Issuer, to fulfil its obligations under the Warrants or to calculate the value of the Warrants, the Issuer shall at its free discretion take all the necessary actions and, if necessary may modify the terms and conditions of these Warrants at its free discretion in such way, that the economic value of the Warrants after occurrence of the extraordinary event corresponds, to the extent possible, to the economic value of the Warrants prior to the occurrence of the extraordinary event. Specific modification rules for certain types of Underlying stated in Section IV of the Issuance Programme shall prevail. If the Issuer determines, for whatever reason, that a adequate modification is not possible, the Issuer has the right to redeem the Warrants early.

| Market Disruptions                | to the Underly<br>market price ca<br>Calculation Ag<br>Underlying/the<br>discretion, con<br>the last market<br>of the Underly<br>has the right, i<br>Redemption D<br>the first Bankin<br>terminated. The<br>Issuance Progra<br>accordingly for<br>Derivate, if its  | occurrence of a Market Disruption in relation<br>ving / a component of the Underlying no<br>can be determined, the Issuer or the<br>gent shall determine the market price of the<br>e component of the Underlying at its free<br>hsidering the general market conditions and<br>et price of relevant Underlying / component<br>ving affected by the Market Disruption and<br>if the Market Disruption persists on the<br>Date, to postpone the Redemption Date to<br>ng Day on which the Market Disruption has<br>he specific provisions in Section IV.A.c) of the<br>ramme shall prevail. This provision shall apply<br>or the determination of the value of the<br>Underlying/a component of the Underlying<br>a Market Disruption.   |
|-----------------------------------|---|---|
| Selling Restrictions              | Programme and<br>Guernsey).<br>In particular m<br>contained with<br>used or relied<br>entity) who may<br>the US Securitic<br>resident; any c<br>entity organize<br>other categoria<br>The Issuer has<br>public offering<br>distribution of<br>the issuance or<br>Switzerland. The<br>documents pro-<br>the Warrants in ce<br>Persons, which<br>other document<br>issuance of the<br>Term Sheets, m<br>required by the | trictions contained in the Issuance<br>re applicable (EEA, U.S.A. / U.S. persons,<br>hust this publication and the information<br>hin not be distributed and / or redistributed,<br>upon, by any person (whether individual or<br>ay be a US person under Regulation S under<br>ies Act of 1933. US persons include any US<br>corporation, company, partnership or other<br>ed under any law of the United States; and<br>es set out in Regulation S.<br>not undertaken any actions to permit the<br>g of the Warrants or the possession or the<br>any document produced in connection with<br>of the Warrants in any jurisdiction other than<br>the distribution of these Final Terms or other<br>oduced in connection with the issuance of<br>and the offering, sale and delivery of the<br>ertain jurisdictions may be restricted by law.<br>In have received these Final Terms or any<br>ents produced in connection with the<br>e Warrants, such as the Issuance Programme,<br>marketing or other selling material, are<br>e Issuer to inform themselves about and to<br>uch restrictions. |
| Prudential Supervision            | Federal Act on<br>952.0) and a s<br>Federal Act on<br>(BEHG; SR 954   | onalbank is a bank according to the Swiss<br>on Banks and Saving Institutions (BankG; SR<br>securities dealer according to the Swiss<br>on Securities Exchanges and Securities Trading<br>4.1) and subject to the prudential supervision<br>Laupenstrasse 27, CH-3003 Bern,<br>nnma.ch  |
| Sales: Tel +41 (0)44 293 66 65/27 | SIX Telekurs:<br>Internet:<br>Bloomberg:  | .zkb Reuters: ZKBWTS<br>www.zkb.ch/aktienprodukte<br>www.zkb.ch/waehrungsprodukte<br>ZKBY <go></go>   |

| Recording of Telephone<br>conversations | Investors are reminded, that telephone conversations with<br>trading or sales units of the Zürcher Kantonalbank are<br>recorded. Investors, who have telephone conversations<br>with these units consent tacitly to the recording.  |
|---|---|
| Further Information                     | This document constitutes neither an offer nor a<br>recommendation or invitation to purchase financial<br>instruments and can't replace the individual investor's own<br>judgement. The information contained in this document<br>does not constitute investment advice but is intended<br>solely as a product description. An investment decision<br>should in any case be made on the basis of these Final<br>Terms and the Issuance Programme. Particularly, before<br>entering into a transaction, the investor should, if<br>necessary with the assistance of an advisor, examine the<br>conditions for investment in the Product in consideration<br>of his personal situation with regard to legal, regulatory,<br>tax and other consequences. Only an investor who is<br>aware of the risks of the transaction and has the financial<br>capacity to bear any losses should enter into such<br>transactions. |

### **No Material Change**

Since the date of the Issuance Programme there have not been any material changes in the assets, financial standing or revenue of the Issuer.

## **Responsibility for the Final Terms**

The Issuer accepts responsibility for the information contained in these Final Terms and declare, that the information contained in these Final Terms is, to the best knowledge, in accordance with the facts and contains no omission likely to affect its import

## On behalf of **Zürcher Kantonalbank**:

Zürich, 15 April 2019

Name Function Name Function Annex 4B

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**Template Final Terms for Mini-Futures** 

THIS IS A NON-BINDING ENGLISH TRANSLATION OF THE ISSUERS' "EMISSIONSPROGRAMM" DATED 15 APRIL 2019 AND PUBLISHED IN GERMAN. THE GERMAN TEXT SHALL BE CONTROLLING AND BINDING. THE ENGLISH LANGUAGE TRANSLATION IS PROVIDED FOR CONVENIENCE ONLY.

# **ANNEX 4B**

# **Template Final Terms for Mini-Futures**

| for Mini-Futures   |   |
|--|---|
| NAME OF THE PRODUCT  |   |
| Terms and Conditions   |   |
| 1. Product Description   |   |
| Product Category/Name  | Mini-Future certificates (2210, in accordance to the Swiss<br>Derivative Map provided by the Swiss Structured Products<br>Association of [•]  |
| CISA Notification  | These Derivatives do not constitute a collective investment<br>scheme within the meaning of the Swiss Federal Act on<br>Collective Investment Schemes (CISA) and are not subject to<br>authorisation or supervision by FINMA. The issuer risk is<br>borne by investors  |
| Key Features of the Product  | Mini-Futures enable a greater participation in the price<br>performance of the Underlying, in keeping with the leverage. ZKB<br>Mini-Futures [Long][Short] benefit from [rising][falling] prices of the<br>Underlying. ZKB Mini-Futures [Long][Short] do not have a fixed<br>term, but have a Stop-Loss Level, which is adjusted daily or<br>periodically. Upon reaching the Stop-Loss Level the ZKB Mini-Future<br>[Long][Short] expires immediately and any realisable residual value<br>is repaid to the Investor. A daily interest rate consisting of a Money<br>Market Interest Rate and a Financing Spread is offset against the<br>leveraged capital in the amount of the Financing Level provided by<br>the Issuer. Any investment income from the Underlying will be<br>deducted from the Financing Level.<br>Zürcher Kantonalbank |
| Rating of the Issuer   | Standard&Poor's AAA, Moody's Aaa, Fitch AAA   |
| Lead Manager, Paying Agent,<br>Exercise Agent and Calculation<br>Agent | Zürcher Kantonalbank, Zürich  |
| Symbol/Swiss Security Code /ISIN                                       | [•]   |
| Underlying   | [•]   |
| Underlying's Spot Reference Price                                      | [•]   |
| Ratio  | [•]   |

| Reference Currency                 | [•]  |
|------------------------------------|--|
| Issue Price                        | [•]  |
| Issue Volume                       | Up to $[\bullet]$ Mini-Future, with the right to increase  |
| [Financing Level at Initial Fixing | [•]]   |
| Stop-Loss Level at Initial Fixing  | [•]  |
| Initial Fixing Date                | [•]  |
| First Trading Date                 | [•]  |
| Payment Date                       | [•]  |
| Duration                           | [•]  |
| Initial Financing Spread           | [•] %  |
| Maximum Financing Spread           | [•] %  |
| Initial Stop-Loss Buffer           | [•] %  |
| Maximum Stop-Loss Buffer           | [•] %  |
| Rounding of Financing Level        | [•]  |
| Rounding of Stop-Loss Level        | [•]  |
| Observation Period                 | Continuous monitoring from Initial Fixing  |
| Initial Leverage                   | <ul> <li>[•] (Sport Reference Price of the Underlying, multiplied by FX rate,<br/>divided by Ratio, divided by Issue Price)</li> </ul>   |
| Current Financing Level            | At the end of each adjustment day, the Financing Level is adjusted<br>by offsetting the interest and debiting any investment income of<br>the Underlying. The Current Financing Level is determined by the<br>Calculation Agent using the following formula: |
|                                    | [•]  |
|                                    | The result of the calculation is rounded up/down to the nearest multiple according to the rounding of the Financing Level.   |
| Adjustment Dates                   | Every trading day of the Mini Future   |
| Trading and Execution Units        | [•] Mini Future/s or a multiple thereof  |
| Money Market Interest Rate         | The current Money Market Interest Rate determined by the Calculation Agent for overnight deposits in the trading currency of the Underlying.   |
| Financing Spread                   | Value determined by the Calculation Agent on each Adjustment<br>Day which is at least zero and at most equals to the Maximum<br>Financing Spread.  |
| Stop-Loss Event                    | A Stop-Loss Event occurs, if the price of the Underlying touches or<br>[falls below/exceeds] the Current Stop-Loss Level during the<br>Underlying's trading hours. In this case, the Mini-Futures are  |

considered automatically exercised and expired. The Current Stop-Loss Level is determined by the Calculation Agent **Current Stop-Loss Level** on each Stop-Loss Level Fixing Date after the Financing Level has been adjusted, according to the following formula: [•] where: [•] The result of the calculation is rounded up to the next multiple of the rounding of the Stop-Loss Level. **Stop-Loss Level Fixing Dates** Each first banking day of the month, each ex-dividend day of the Underlying and, at the discretion of the Issuer, each banking day on which the Issuer deems it necessary to adjust the Stop-Loss l evel A value determined by the Calculation Agent on each Stop-Loss **Stop-Loss Buffer** Level Fixation Day that is equal to or greater than zero and equal to or less than the Maximum Stop-Loss Buffer. A price for the relevant Underlying determined by the Payment **Stop-Loss Liquidation Price** Agent and Calculation Agent within a period of one hour during the trading hours of the Certificate following the occurrence of the Stop-Loss Event. If a Stop-Loss Event occurs less than one hour before the end of any trading period, the period will be extended to the next trading day. The Stop-Loss Liquidation Price may deviate signifcantly from the Stop-Loss Level. From the first trading day of the Mini-Futures, the investor has the **Investor Put Option** right to exercise his Mini-Futures on this and any subsequent trading day - subject to the occurrence of a stop-loss event - or to demand payment of the corresponding redemption amount. The corresponding written exercise declaration must be received by the exercise office by 11.00h a.m. CET at the latest. **Issuer Call Option** The Issuer is entitled at any time, without giving reasons, to cancel unexercised Mini-Futures, for the first time 3 months after provisory trade approval at SIX Swiss Exchange. **Final Fixing Date** The trading day on which a Stop-Loss Event occurs, the Mini-Futures are cancelled by the Issuer or exercised by the investor. The occurrence of a Stop-Loss Event takes precedence over termination or exercise. Per Mini-Future, an amount calculated according to the following **Redemption Amount on Exercise, Termination or Stop-Loss Event** formula in the Reference Currency will be paid out upon the occurrence of a Stop-Loss Event, upon exercise by the investor or upon redemption by the Issuer: [•] The repayment will be paid five banking days after the Final Fixing

Day.

| Listing                       | Application to list on the SIX Swiss Exchange will be filed, the first provisory trading day will be $[\bullet]$  |
|-------------------------------|---|
| Secondary market/Tradability  | The Issuer intends (without legal obligation), under normal market<br>conditions, to constantly provide indicative bid and offer prices for<br>this Product during continuous trading. Actual bid/offer prices are<br>available on https://zkb-<br>nance.mdgms.com/products/warrants/index.html and on SIX Swiss<br>Exchange.   |
| Clearing Agent                | SIX SIS AG  |
| Sales: 044 293 66 65          | SIX Telekurs: .zkb Reuters: ZKBWTS<br>Internet: www.zkb.ch/aktienprodukte<br>Bloomberg: ZKBW <go></go>  |
| Taxes                         | Any profits or losses arising from Mini-Futures are considered<br>capital gains or losses for private investors domiciled in Switzerland<br>for tax purposes and are therefore not subject to income tax. The<br>product is not subject to federal withholding tax. The product may<br>be subject to further withholding taxes or duties, in particular<br>under the rules of FATCA or Sect. 871(m) U.S. Tax Code or foreign<br>financial transaction taxes. All payments from this product are<br>made after deduction of any withholding taxes and levies.<br>The information above is a summary only of the Issuer's<br>understanding of current law and practice in Switzerland relating<br>to the taxation of derivatives. The relevant tax law and practice may<br>change. The Issuer does not assume any liability in connection with<br>the above information. The tax information only provides a general<br>overview and can not substitute the personal tax advice to the<br>investor.   |
| Documentation                 | This document constitutes the Final Terms in accordance to article<br>21 of the Additional Rules for the Listing of Derivatives of the SIX<br>Swiss Exchange. These Final Terms supplement the Issuance<br>Programme of the Issuer dated April 15, 2019 and published in<br>German in the currently valid version. These Final Terms and the<br>Issuance Programme constitute the complete Issuance and Listing<br>Prospectus for this issuance (the 'Listing Prospectus'). Except as<br>otherwise defined in these Final Terms, capitalised terms used in<br>these Final Terms have the meaning as defined in the Glossary in<br>the Issuance Programme. In case of discrepancies between<br>information or the provisions in these Final Terms and those in the<br>Issuance Programme, the information and provisions in these Final<br>Terms shall prevail. Mini-Future will be issued as uncertified rights<br>(Wertrechte) and registered as book entry securities (Bucheffekten)<br>with SIX SIS AG. Investors have no right to require the issuance of<br>any certificates or proves of evidence. These Final Terms and the<br>Issuance Programme can be ordered free of charge at<br>Zürcher Kantonalbank Bahnhofstrasse 9, 8001 Zurich, dept.<br>VRIE or by e-mail at documentation@zkb.ch.<br>This document is not a prospectus in accordance with articles 652a<br>or 1156 of the Swiss Code of Obligations. |
| Information on the Underlying | Information on the performance of the Underlying is publicly<br>available on www.bloomberg.com. Current annual reports are<br>published on the website of the respective business entity. The<br>transfer of the Underlying is conducted in accordance with their<br>respective statutes.   |

| Notifications                              | Any notice by the Issuer in connection with this product, in<br>particular any notice in connection with modifications of the terms<br>and conditions will be validly published on the website https://zkb-<br>finance.mdgms.com/products/stp/index.html to the corresponing<br>product. The Swiss security code search button will lead you<br>directly to the relevant product. The notices will be published in<br>accordance with the rules issued by SIX Swiss Exchange for IBL<br>(Internet Based Listing) on the website https://www.six-exchange-<br>regulation.com/de/home/publications/of_cial-notices.html.  |
|--|---|
| Governing Law/Jurisdiction                 | Swiss Law/Zurich  |
| 2. Profit and Loss Expectation at          | Maturity  |
| Profit and Loss Expectation at<br>Maturity | Mini-Futures offer the opportunity to benefit disproportionately<br>from a positive/negative performance of the Underlying. The [profit<br>outlook is basically unlimited for][potential loss of] Mini-Futures is<br>limited to the capital invested]. Mini-Futures are Derivatives whose<br>risk is correspondingly greater than the risk of the Underlying due<br>to the leverage effect.<br>In the event of a Stop-Loss Event, the actual execution price of the<br>closing out of the Mini-Future may diverge sharply from the<br>Current Stop-Loss Level, which is only to be seen as the trigger of a<br>Stop-Loss Event, not as an actual indication of the Redemption<br>Amount of the certificate that can be effectively reached. |
|  |   |

### 3. Material Risks for Investors

**Credit Risk relating to Issuer** Obligations under these Derivatives constitute direct, unconditional and unsecured obligations of the Issuer and rank pari passu with other direct, unconditional and unsecured obligations of the Issuer. The value of the Derivatives does not only depend on the performance of the Underlying and other developments in the financial markets, but also on the solvency of the Issuer, which may change during the term of this Series of Derivatives.

Specific Product RisksMini-Futures involve the risk of losing the entire capital initially paid<br/>(the Issue Price). They are meant only for experienced investors who<br/>understand the associated risks and can bear them. Mini-Futures<br/>do not generate continuous income; Mini-Futures generally lose<br/>value if there is no price [increase][decrease] of the Underlying or if<br/>the price of the Underlying remains constant.<br/>Mini-Futures are investment products whose risk is greater than a<br/>direct investment in the Underlying due to the Leverage effect.

#### 4. Additional Terms

Modifications

If an Extraordinary Event as described in Section IV of the Issuance Programme occurs in relation to the Underlying / a component of the Underlying or if any other extraordinary event occurs, which makes it impossible or particularly cumbersome for the Issuer, to fulfil its obligations under the Structured Products or to calculate the value of the Structured Products, the Issuer shall at its free discretion take all the necessary actions and, if necessary may modify the terms and conditions of these Structured Products at its free discretion in such way, that the economic value of the Structured Products after occurrence of the extraordinary event

|   | corresponds, to the extent possible, to the economic value of the<br>Structured Products prior to the occurrence of the extraordinary<br>event. Specific modification rules for certain types of Underlyings<br>stated in Section IV of the Issuance Programme shall prevail. If the<br>Issuer determines, for whatever reason, that an adequate<br>modification is not possible, the Issuer has the right to redeem the<br>Structured Products early.  |
|---|---|
| Market Disruptions                      | If, due to the occurrence of a Market Disruption in relation to the<br>Underlying / a component of the Underlying no market price can<br>be determined, the Issuer or the Calculation Agent shall determine<br>the market price of the Underlying / the component of the<br>Underlying at its free discretion, considering the general market<br>conditions and the last market price of relevant Underlying /<br>component of the Underlying affected by the Market Disruption<br>and has the right, if the Market Disruption persists on the<br>Redemption Date, to postpone the Redemption Date to the first<br>Banking Day on which the Market Disruption has terminated. The<br>specific provisions in Section IV.A.c) of the Issuance Programme<br>shall prevail.<br>This provision shall apply accordingly for the determination of the<br>value of the Structured Products, if its Underlying / a component of<br>the Underlying is affected by a Market Disruption.  |
| Selling Restrictions                    | The selling restrictions contained in the Issuance Programme are<br>applicable (EEA, U.S.A./U.S. persons, United Kingdom, Guernsey).<br>In particular must this publication and the information contained<br>within not be distributed and / or redistributed, used or relied<br>upon, by any person (whether individual or entity) who may be a<br>US person under Regulation S under the US Securities Act of 1933.<br>US persons include any US resident; any corporation, company,<br>partnership or other entity organized under any law of the United<br>States; and other categories set out in Regulation S.<br>The Issuer has not undertaken any actions to permit the public<br>offering of the Structured Products or the possession or the<br>distribution of any document produced in connection with the<br>issuance of the Structured Products in any jurisdiction other than<br>Switzerland. The distribution of these Final Terms or other<br>documents produced in connection with the issuance of the<br>Structured Products and the offering, sale and delivery of the<br>Structured Products in certain jurisdictions may be restricted by law.<br>Persons, which have received these Final Terms or any other<br>documents produced in connection with the issuance of the<br>Structured Products, such as the Issuance Programme, Termsheets,<br>marketing or other selling material, are required by the Issuer to<br>inform themselves about and to observe any such restrictions. |
| Prudential Supervision                  | Zürcher Kantonalbank is a bank according to the Swiss Federal Act<br>on Banks and Saving Institutions (BankG; SR 952.0) and a securities<br>dealer according to the Swiss Federal Act on Securities Exchanges<br>and Securities Trading (BEHG; SR 954.1) and subject to the<br>prudential supervision of the FINMA, Laupenstrasse 27, CH-3003<br>Bern, http://www.finma.ch. Zürcher Kantonalbank Finance<br>(Guernsey) Limited is not subject to any direct prudential<br>supervision neither in Guernsey nor in Switzerland, but is a fully<br>owned and fully consolidated subsidiary of Zürcher Kantonalbank.  |
| Recording of Telephone<br>conversations | Investors are reminded, that telephone conversations with trading<br>or sales units of the Zürcher Kantonalbank are recorded. Investors,<br>who have telephone conversations with these units consent tacitly   |

to the recording.

#### **Further Information**

This document constitutes neither an offer nor a recommendation or invitation to purchase financial instruments and can't replace the individual investor's own judgement. The information contained in this document does not constitute investment advice but is intended solely as a product description. An investment decision should in any case be made on the basis of these Final Terms and the Issuance Programme. Particularly, before entering into a transaction, the investor should, if necessary with the assistance of an advisor, examine the conditions for investment in the Product in consideration of his personal situation with regard to legal, regulatory, tax and other consequences. Only an investor who is aware of the risks of the transaction and has the financial capacity to bear any losses should enter into such transactions.

## **No Material Change**

Since the date of the Issuance Programme there have not been any material changes in the assets, financial standing or revenue of the Issuer.

## **Responsibility for the Final Terms**

The Issuer accepts responsibility for the information contained in these Final Terms and declare, that the information contained in these Final Terms is, to the best knowledge, in accordance with the facts and contains no omission likely to affect its import.

## On behalf of **Zürcher Kantonalbank**:

Zürich, 15 April 2019

| Name     |  |
|----------|--|
| Function |  |

Name Function Annex 4C

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**Template Final Terms for other Derivates** 

THIS IS AN NON-BINDING ENGLISH TRANSLATION OF THE ISSUERS' "EMISSIONSPROGRAMM" DATED 15 APRIL 2019 AND PUBLISHED IN GERMAN. THE GERMAN TEXT SHALL BE CONTROLLING AND BINDING. THE ENGLISH LANGUAGE TRANSLATION IS PROVIDED FOR CONVENIENCE ONLY.

# **ANNEX 4C**

# **Template of the Final Terms**

## For Derivatives (excl. Warrants und Mini-Futures)

## NAME OF THE PRODUCT

## **Terms and Conditions**

| 1. Product Description  |  |
|---|--|
| [New Issue/[preliminary simplified<br>prospectus][indicative termsheet] | ** The information contained herein is purely of an indicative<br>nature. The Issuer/Calculation Agent shall fix the legally binding<br>parameters on the Initial Fixing Date. The Investor acknowledges<br>that the Final Terms of the present Structured Product shall not be<br>fixed until the Initial Fixing Date, and by subscribing to the present<br>Structured Product is indicating his agreement with the Final<br>Terms.]  |
| Product Category/Name   | [●] ([●], according to the Swiss Derivative Map provided by the Swiss Structured Products Association) of [●]  |
| CISA Notification   | This is a Structured Product. It does not constitute a collective<br>investment scheme within the meaning of the Swiss Federal<br>Act on Collective Investment Schemes (CISA) and it is not<br>subject to authorisation or supervision by the FINMA. The<br>issuer risk is borne by Investors.   |
| [Investment Profile   | [•]]   |
| [Title Universe   | [•]]   |
| [Rebalancing  | [•]]   |
| lssuer  | [Zürcher Kantonalbank, Zürich] [Zürcher Kantonalbank Finance<br>(Guernsey) Limited, Saint Peter Port, Guernsey<br>Zürcher Kantonalbank Finance (Guernsey) Limited, Guernsey is a<br>wholly owned and fully consolidated subsidiary of Zürcher<br>Kantonalbank. It is not subject to any direct prudential supervision<br>neither in Guernsey nor in Switzerland and does not have a rating.]   |
| [Keep-Well Agreement  | Zürcher Kantonalbank Finance (Guernsey) Limited is a fully owned<br>subsidiary of Zürcher Kantonalbank. Zürcher Kantonalbank obtains<br>the following ratings: Standard & Poor's: AAA, Moody's: Aaa, Fitch:<br>AAA. Zürcher Kantonalbank is committed to Zürcher Kantonalbank<br>Finance (Guernsey) Limited with sufficient financial means, allowing<br>to satisfy any claims of ist creditors in due time. The full text of the<br>Keep-Well Agreement can be found under Annex 3 of the Issuance<br>Programme.] |
| [Rating of the Issuer   | Standard&Poor's [•], Moody's [•], Fitch [•]]   |

| Lead Manager, Paying Agent,<br>Exercise Agent and Calculation<br>Agent | Zürcher Kantonalbank, Zürich   |
|--|--|
| [Investment Manager  | [•]]   |
| [Symbol/]Swiss Security Code/ISIN                                      | [●] [not listed]/[●]   |
| Notional Amount/Denomination/<br>Trading Units                         | Up to [•], with the right to increase/Denomination and Trading Unit<br>[•] each/[•] or multiples thereof |
| [Number of Structured Products   | Up to [•], with the right to increase]   |
| Issue Price [per Structured Product]                                   | [•]  |
| Currency   | [Quanto] [•]   |
| Underlying [per Initial Fixing Date]                                   | [•]  |
| [Basket Value  | [•] on Initial Fixing Date]  |
| [Knock-in Level  | [•]% of Initial Fixing Value]  |
| [Cap/Cap Level   | [●] / [●]% of [●]]   |
| Ratio  | [•]]   |
| [Dividend Payments   | [•]]   |
| [Minimum Repayment Price   | [•]]   |
| [Maximum Repayment Price   | [•]]   |
| [Maximum Redemption Amount   | [•]]   |
| [Maximum Return  | $[\bullet]\%$ [for the entire investment period]/ $[\bullet]\%$ p.a.]                                    |
| [Bonus Payment   | [•]]   |
| [Participation Rate  | <b>[●]%</b> , <b>[●]]</b>  |
| [Exercise Price  | [•]]   |
| [Multiplicator   | [•]]   |
| [Call Level  | [●] / [●]% of [●]]   |
| [Knock-in Level  | $[\bullet] / [\bullet]\%$ of the Underlying on the Initial Fixing Date]                                  |
| [Knock-out Level   | $[\bullet] / [\bullet]]\%$ of the Underlying on the Initial Fixing Date]                                 |
| [Rebate-Payment  | [•]]   |
| [Knock-in Level  | [•]% of Initial Fixing Value]  |
| [Coupon  | [●]/[●]% (Coupon p.a.: [●]%) interest payment p.a. [●] / premium payment p.a. [●]]                       |

| [Coupon Date(s)/Coupon Payments | <ul> <li>[•]</li> <li>If several Coupons: The Coupon will be paid in equal parts on each</li> <li>Coupon Dates.]</li> </ul>   |
|---------------------------------|---|
| Observation Dates/Early         | [•]]  |
| Redemption Dates                | The bank working days of the Exercise Agent shall apply for the<br>observation days. [If the exchange is closed on an Observation<br>Date, the next following day where the exchange is open will be<br>used for the calculation of the Underlying (modified following<br>business day convention).]  |
| [Minimum Coupon                 | [•]%]   |
| [Day Count Fraction             | [30/360], modified following]   |
| [Coupon Fixing                  | [•]]  |
| [Coupon Calculation             | [•]]  |
| [Return Cap                     | [•]]  |
| [Return Floor                   | [•]]  |
| Subscription Period             | Subscriptions for these Structured Products can be made until [•].<br>The Issuer shall have the right, to reduce the number of Structured<br>Products issued or to withdraw them from the issue for any reason.<br>Furthermore, the Issuer shall have the right to close the offer<br>prematurely or to postbone the Subscription Period.   |
| Initial Fixing Date             | [•]   |
| Issue Date                      | [•]   |
| [Redemption Right of the Issuer | The Issuer has the right to redeem the outstanding Structured<br>Products [•] on [•] (fixing date; modified following), for the first<br>time on [•]. On the fixing date, the redemption amount is<br>determined, which is governed by the information under the<br>section Redemption Method. The announcement and thus the<br>declaration of intent to exercise the Redemption right is made with<br>a notice period of 20 banking days [via the official publication<br>channel of the SIX Swiss Exchange][on the website of Zürcher<br>Kantonalbank]. No statement of reasons is required. The<br>redemption will be executed with a value date of 5 bank working<br>days after the fixing date (Redemption Date).] |

| [Right to return of the Investor             | In addition to the possibility of selling the Structured Products in<br>the secondary market, the Investor has the right to return the<br>product [•] per [dd MMMM] (fixing date, modified following) to<br>the Issuer. On the fixing date, the redemption amount is<br>determined, which is governed by the information under the<br>section Redemption Method. The declaration of intent to exercise<br>the Right to return must be received no later than 5 banking days<br>before the respective fixing date (exercise date) by Zürcher<br>Kantonalbank and must be sent to the following address: by letter<br>post to Zürcher Kantonalbank, Sales Structured Products, IHHV,<br>P.O. Box, 8010 Zürich or by email to derivate@zkb.ch. The<br>repayment will be executed with a value date of 5 bank working<br>days after the fixing date (Redemption Date).<br>Should the Structured Products of the Investor be deposited in a<br>custodian bank, the Investor needs additionally and in due time<br>advise/inform his custodian bank according the notice of<br>redemption.] |
|--|---|
| [Last Trading Date                           | [•]]  |
| [Final Fixing Date                           | [•]]  |
| [Redemption Date/Date of Delivery            | $[\bullet]$ [prematurely possible, for the first time on $[\bullet]$ ]]   |
| Initial Fixing Value                         | [•]   |
| [Final Fixing Value                          | [•]]  |
| [Coupon Payment Dates/Payments               | [•]]  |
| [Observation Dates/Early<br>Redemption Dates | [•]]  |
| [Stop Loss Level                             | [•]   |
|  | The Structured Product will be redeemed prematurely if the Calculation Agent determines during the lifetime of the Product that the bid price of the Structured Product is below the Stop Loss Mark. In this case, the Calculation Agent shall dissolve the product in the interests of the customer. The actual selling price achieved for the Underlying is used to calculate the Redemption Amount. The Stop Loss Level is not a guaranteed Redemption. Especially in volatile markets, the Early Redemption price may deviate from the Stop Loss Level. Early Redemption takes place 5 working days after completion of the sale of the Underlying. The Investor is not obliged to make additional contributions.]  |
| [Certificate Value                           | [•]]  |
| [Redemption Method                           | [•]]  |
| Listing                                      | [Application to list on the SIX Swiss Exchange will be filed, the first provisory Trading Date will be [•]]   |
|  | [The Stuctured Product shall not be listed on an official exchange.   |

[The Stuctured Product shall not be listed on an official exchange. The Issuer shall provide a secondary market with a bid-ask spread of no more than [•] % under normal market conditions.]

| [Annual Fee   | [•]% The Annual Fee will be charged based on the value of the Structured Product and is pro rata temporis included in the trading price. Of the Annual Fee, the Issuer receives [•] % for the administration and the Investment Manager receives [•] % for the discretionary management of the Structured Product.]  |
|---|--|
| [Perfomance Fee                                     | [•]% of the positive performance of the Underlying in favour of the<br>Investment Manager. The Performance Fee is deducted on a daily<br>basis, provided that the value of the Certificate is higher than the<br>previous maximum price of the Certificate (high watermark).]  |
| [Rebalancing Fee                                    | [•]]   |
| Clearing house                                      | SIX SIS AG/Euroclear/Clearstream   |
| [Distribution Fees                                  | In the case of this Structured Product, [no] distribution fees will<br>have been paid to one or more distributors in the form of a<br>discount on the issue price, as compensation for part of the issue<br>price or in the form of other one-time and/or periodic fees. [The<br>sales compensation to distributors can be up to [•].]   |
| [Distribution fees to partners<br>outside the group | [No sales compensation is paid to non-group sales partners for this Structured Product.] [Distribution Fees are paid out to distribution partners of this Structured Product outside the group and may amount up to [•] p.a.]]   |
| [Distribution fees to partners intside the group    | Distribution fees are paid out to the Lead Manager and may amount up to [•].]  |
| Sales: Tel 044 293 66 65                            | SIX Telekurs: .zkb Reuters: ZKBSTRUCT<br>Internet: www.zkb.ch/strukturierteprodukte<br>Bloomberg: ZKBY <go></go>   |
| [Essential Product Features                         | [•]]   |
| Taxes   | [•]  |
|   | The information above is a summary only of the Issuer's<br>understanding of current law and practice in Switzerland relating<br>to the taxation of Structured Products. The relevant tax law and<br>practice may change. The Issuer does not assume any liability in<br>connection with the above information. The tax information only<br>provides a general overview and can not substitute the personal<br>tax advice to the Investor.  |
| Documentation                                       | [This document is a non-binding English translation of the<br>Endgültige Bedingungen (Final Terms) published in German and<br>constituting the Final Terms in accordance to article 21 of the<br>Additional Rules for the Listing of Derivatives of the SIX Swiss<br>Exchange. The German text shall be controlling and binding. The<br>English language translation is provided for convenience only.<br>The binding German version of these Final Terms supplement the<br>Issuance Programme of the Issuer dated 15 April [•] and published<br>in German in the currently valid version. The binding German<br>version Final Terms and the Issuance Programme constitute the<br>complete Issuance and Listing Prospectus for this issuance (the<br>"Listing Prospectus").<br>Except as otherwise defined in these Final Terms, capitalised terms<br>used in these Final Terms have the meaning as defined in the<br>Glossary in the Issuance Programme. In case of discrepancies<br>between information or the provisions in these Final Terms and<br>those in the Issuance Programme, the information and provisions<br>in these Final Terms shall prevail. |

|                               | Structured Products will be issued as uncertified rights<br>(Wertrechte) and registered as book entry securities<br>(Bucheffekten) with SIX SIS AG. Investors have no right to require<br>the issuance of any certificates or proves of evidence for the<br>Structured Products.<br><b>These Final Terms and the Issuance Programme can be</b><br>ordered free of charge at Zürcher Kantonalbank<br>Bahnhofstrasse 9, 8001 Zurich, dept. VRIE or by e-mail at<br>documentation@zkb.ch.<br>This document is not a prospectus in accordance with articles<br>652a or 1156 of the Swiss Code of Obligations]<br>[This document constitutes a Simplified Prospectus in accordance<br>with article 5 of the Federal Collective Investment Schemes Act<br>(the "CISA"). The Issuance Programme of the Issuer dated 15<br>April [•], published in German and approved as "SIX Swiss<br>Exchange registered Issuance Programme", complements this<br>Simplified Prospectus. Structured Products will be issued as<br>uncertified rights (Wertrechte) and registered as book entry<br>securities (Bucheffekten) with SIX SIS AG. Investors have no right<br>to request the issuance of any certificates or proves of evidence<br>for the Structured Products. <b>This Simplified Prospectus and the</b><br><b>Issuance Programme can be ordered free of charge at</b><br><b>Zürcher Kantonalbank, Bahnhofstrasse 9, 8001 Zurich, dept.</b><br><b>VRIE or by e-mail at documentation@zkb.ch.</b> This document is<br>not a prospectus in accordance with articles 652a or 1156 of the |
|-------------------------------|---|
|                               | Swiss Code of Obligations.]   |
| Information on the Underlying | [•]   |
|                               | Information on the performance of the Underlying / a component<br>of the Underlying is publicly available on www.bloomberg.com.<br>[Current annual reports are published on the website of the<br>respective business entity/Index Provider.] [The transfer of the<br>Underlying / a component of the Underlying is conducted in<br>accordance with their respective statutes.][The Underlying / a<br>component of the Underlying may include a management fee]   |
|                               | Any notice by the Issuer in connection with these Structured<br>Products, in particular any notice in connection with modifications<br>of the terms and conditions will be validly published on the<br>website https://zkb-finance.mdgms.com/products/stp/index.html<br>under the relevant Structured Product. With the valor search<br>function (Valorensuchfunktion) the relevant Structured Product<br>can be located. [If this Structured Product is listed on the SIX Swiss<br>Exchange, the notices will be published in accordance with the<br>rules issued by the SIX Swiss Exchange for IBL (Internet Based<br>Listing) on the website https://www.six-exchange-<br>regulation.com/en/home/publications/official-notices.html]   |
| Governing Law/Jurisdiction    | Swiss law / Zurich  |

## 2. Profit and Loss Expectation at Maturity

| Profit and Loss Expectation [at<br>Maturity] | [•]<br>The table above is valid [•] and is by no means meant as a price<br>indication for this Structured Product throughout its lifetime. During<br>the term of this Structured Product additional risk factors may have<br>a material effect on the value of the Structured Product . The price<br>quoted on the secondary market may deviate considerably from the |
|--|---|
|  | above list. [It was assumed that in the table above [•] was the worst   |

performing Underlying. This selection is just a representative example of the possible alternatives.]

### 3. Material Risks for Investors

| Credit Risk relating to Issuer | Obligations under these Structured Products constitute direct,<br>unconditional and unsecured obligations of the Issuer and rank pari<br>passu with other direct, unconditional and unsecured obligations of<br>the Issuer. The value of the Structured Products does not only<br>depend on the performance of the Underlying and other<br>developments in the financial markets, but also on the solvency of<br>the Issuer, which may change during the term of this Structured<br>Product.                                  |
|--------------------------------|---|
| Specific Product Risks         | Structured Products are complex financial instruments, which entail considerable risks and, accordingly, are only suitable for Investors who have the requisite knowledge and experience and understand thoroughly the risks connected with an investment in these Structured Products and are capable of bearing the economic risks.[•]<br>This Structured Product is denominated in [•]. If the Investor's reference currency differs from the [•], the Investor bears the risk between the [•] and his reference currency. |

4. Additional Terms

| Modifications      | If an Extraordinary Event as described in Section IV of the Issuance<br>Programme occurs in relation to the Underlying/a component of the<br>Underlying or if any other extraordinary event occurs, which makes it<br>impossible or particularly cumbersome for the Issuer, to fulfill its<br>obligations under the Structured Products or to calculate the value of<br>the Structured Products, the Issuer shall at its own discretion take all<br>the necessary actions and, if necessary may modify the terms and<br>conditions of these Structured Products at its own discretion in such<br>way, that the economic value of the Structured Products after<br>occurrence of the extraordinary event corresponds, to the extent<br>possible, to the economic value of the Structured Products prior to<br>the occurrence of the extraordinary event. Specific modification rules<br>for certain types of Underlyings stated in Section IV of the Issuance<br>Programme shall prevail. If the Issuer determines, for whatever<br>reason, that an adequate modification is not possible, the Issuer has<br>the right to redeem the Structured Products early. |
|--------------------|--|
| [Change of Obligor | The Issuer is entitled at all times and without the consent of the<br>Investors to assign in whole (but not in part) the rights and claims<br>under individual Structured Products or all of them to a Swiss or<br>foreign subsidiary, branch or holding company of the Zürcher<br>Kantonalbank (the "New Issuer") to the extent that (i) the New<br>Issuer assumes all of the obligations arising out of the assigned<br>Structured Products which the previous Issuer owed in respect of<br>these Structured Products , (ii) the Zürcher Kantonalbank enters into<br>a Keep-Well Agreement with the New Issuer with terms equivalent<br>to the one between the Zürcher Kantonalbank and Zürcher<br>Kantonalbank Finance (Guernsey) Limited, (iii) the New Issuer has<br>received from the supervisory authorities of the country in which it is<br>domiciled all necessary approvals for the issue of Structured Products<br>and the assumption of the obligations under the assigned Structured<br>Products.]   |

| Market Disruptions                             | [Compare specific provisions in the Issuance Programme.]  |
|--|---|
|  | [If, due to the occurrence of a Market Disruption in relation to the<br>Underlying/a component of the Underlying no market price can be<br>determined, the Issuer or the Calculation Agent shall determine the<br>market price of the Underlying/the component of the Underlying at<br>its free discretion, considering the general market conditions and the<br>last market price of relevant Underlying/component of the Underlying<br>affected by the Market Disruption and has the right, if the Market<br>Disruption persists on the Redemption Date, to postpone the<br>Redemption Date to the first Banking Day on which the Market<br>Disruption has terminated. It shall make comparisons with the<br>provisions laid down in the Issuance Programme, which shall take<br>precedence. This provision shall apply accordingly to the<br>determination of the value of the Structured Products, if the<br>Underlying/a component of the Underlying is affected by a Market<br>Disruption.] |
| [Risks related to the Underlying               | During the term of the Structured Products, the Underlying or the composition of the Underlyings may be adjusted or replaced by the Issuer. There may also be interruptions in the calculation and/or valuation of the Underlying and the Index Sponsor may subsequently adjust the valuation. In such cases, it cannot be ruled out that such adjustments or replacements may have a negative impact on the value of the Structured Products and that any price disadvantages will be passed on to the Investor of the Structured Product. Similarly, in the case of Structured Products on an index, it cannot be ruled out that changes in the composition of an index may have a negative impact on the price of the index and thus the value of the Structured Products through adjustments or replacements with respect to individual index components, for example through the exclusion or new inclusion of individual securities.]   |
| [Early Termination in Case of<br>Change of Law | The Issuer reserves the right of early termination in respect of all<br>Structured Products issued under this Issuance Programme for tax<br>reasons (such as, e.g., in the situation in which the Issuer would be<br>required on account of new tax laws to pay additional amounts which<br>result from the withholding or deduction of current or future taxes,<br>imposts, charges or fees, regardless of type), as well as in the case of<br>limitations in respect of its activities as Issuer through new laws or<br>administrative measures (e.g., if it is prohibited under supervisory law<br>from issuing<br>Structured Products).   |
| [Substitution of Underlying                    | During the term of the Structured Product, changes in or substitution<br>of the Underlying by the Calculation Agent can occur. In this case, it<br>cannot be ruled out that such changes or substitutions will negatively<br>affect the value of the Structured Product. Likewise, it cannot be<br>ruled out that in the case of a Structured Product based on an index<br>that changes in the composition of the index as a result of change or<br>substitutions in respect of individual index components, for example,<br>as a result of the withdrawal or addition of individual securities,<br>may negatively influence the price of the index and accordingly the<br>value of the Structured Product.]  |
| Selling Restrictions                           | The selling restrictions contained in the Issuance Programme are<br>applicable (EEA, U.S.A. / U.S. persons, Guernsey).<br>In particular must this publication and the information contained<br>within not be distributed and / or redistributed, used or relied upon, by<br>any person (whether individual or entity) who may be a US person<br>under Regulation S under the US Securities Act of 1933. US persons<br>include any US resident; any corporation, company, partnership or   |

|   | other entity organized under any law of the United States; and other<br>categories set out in Regulation S.<br>The Issuer has not undertaken any actions to permit the public<br>offering of the Structured Products or the possession or the<br>distribution of any document produced in connection with the<br>issuance of the Structured Products in any jurisdiction other than<br>Switzerland. The distribution of these Final Terms or other documents<br>produced in connection with the issuance of the Structured Products<br>and the offering, sale and delivery of the Structured Products in certain<br>jurisdictions may be restricted by law. Persons, which have received<br>these Final Terms or any other documents produced in connection<br>with the issuance of the Structured Products, such as the Issuance<br>Programme, Termsheets, marketing or other selling material, are<br>required by the Issuer to inform themselves about and to observe any<br>such restrictions. |
|---|--|
| Prudential Supervision                  | As a bank within the meaning of the Swiss Federal Act on Banks and<br>Savings Banks (BankG; SR 952.0) and a [securities dealer within the<br>meaning of the Swiss Federal Act on Securities Exchanges and<br>Securities Trading (BEHG; SR 954.1)], [securities house within the<br>meaning of the Swiss Federal Act on financial institutions (FINIG, SR<br>954.1)] Zürcher Kantonalbank is subject to the prudential supervision<br>of FINMA, Laupenstrasse 27, CH-3003 Bern, http://www.finma.ch.  |
| Recording of Telephone<br>conversations | Investors are reminded that telephone conversations with trading or<br>sales units of Zürcher Kantonalbank are recorded. Investors, engaging<br>in telephone conversations with these units provide their tacit consent<br>to the recording of their conversations.  |
| Further Information                     | This document constitutes neither an offer nor a recommendation or<br>invitation to purchase financial instruments and can't replace the<br>individual investor's own judgement. The information contained in this<br>document does not constitute investment advice but is intended solely<br>as a product description. An investment decision should in any case be<br>made on the basis of these Final Terms and the Issuance Programme.<br>Particularly, before entering into a transaction, the investor should, if<br>necessary with the assistance of an advisor, examine the conditions for<br>investment in the Product in consideration of his personal situation<br>with regard to legal, regulatory, tax and other consequences. Only an<br>investor who is aware of the risks of the transaction and has the<br>financial capacity to bear any losses should enter into such<br>transactions.   |

### **No Material Change**

Since the date of the Issuance Programme there have not been any material changes in the assets, financial standing or revenue of the Issuer [insert, if the Derivatives are issued by Zürcher Kantonalbank Finance (Guernsey) Limited: and of Zürcher Kantonalbank].

## **Responsibility for the Final Terms**

The Issuer [insert, if the Derivatives are issued by Zürcher Kantonalbank Finance (Guernsey) Limited: and of Zurcher Kantonalbank] accept[s] responsibility for the information contained in these Final Terms and declare[s], that the information contained in these Final Terms is, to the best knowledge, in accordance with the facts and contains no omission likely to affect its import

Zürich, 15 April 2019

Name Function Name Function

On behalf of Zürcher Kantonalbank Finance (Guernsey) Limited

15 April 2019

Name Function Name Function