

UBS AG
Form 424B2
January 17, 2019

PRICING SUPPLEMENT

Dated January 15, 2019

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Registration Statement No. 333-225551

(To Prospectus dated October 31, 2018,

Index Supplement dated October 31, 2018

and Product Supplement dated October 31, 2018)

UBS AG \$3,000,000 Step Down Trigger Autocallable Notes

Linked to the least performing of the Nasdaq-100 Index[®] and the S&P 500[®] Index due January 20, 2022

Investment Description

UBS AG Step Down Trigger Autocallable Notes (the “Notes”) are unsubordinated, unsecured debt securities issued by UBS AG (“UBS” or the “issuer”) linked to the least performing of the Nasdaq-100 Index[®] and the S&P 500[®] Index (each, an “underlying asset” and together, the “underlying assets”). UBS will automatically call the Notes (an “automatic call”) if the closing level of each underlying asset on any observation date, including the final valuation date, is equal to or greater than its call threshold level. If the Notes are subject to an automatic call, UBS will pay on the applicable call settlement date following such observation date a cash payment per Note equal to the “call price”, which is your principal amount plus a call return based on the call return rate, and no further payments will be owed to you under the Notes. The call return increases the longer the Notes are outstanding. If, however, the Notes are not subject to an automatic call, then the closing level of at least one underlying asset on the final valuation date (its “final level”) is less than its downside threshold. In this scenario, UBS will pay you a cash payment per Note that is less than the principal amount, if anything, resulting in a percentage loss on your initial investment equal to the underlying return of the least performing underlying asset and, in extreme situations, you could lose all of your initial investment. The “least performing underlying asset” is the underlying asset with the lowest underlying return as compared to any other underlying asset. **Investing in the Notes involves significant risks. You may lose a significant portion or all of your initial investment. You will be exposed to the market risk of each underlying asset on each observation date and on the final valuation date and any decline in the level of one underlying asset may negatively affect your return and will not be offset or mitigated by a lesser decline or any potential increase in the level of any other underlying asset. Higher call return rates are generally associated with a greater risk of loss and a greater risk that the Notes will not be subject to an automatic call. Any payment on the Notes, including any repayment of principal, is subject to the creditworthiness of UBS. If UBS were to default on its payment obligations you may not receive any amounts owed to you under the Notes and you could lose all of your initial investment.**

Features

q Automatic Call Feature with Step Down Call Threshold Levels — UBS will automatically call the Notes if the closing level of each underlying asset on any observation date, including the final valuation date, is equal to or greater than its call threshold level, which is higher for observation dates prior to the final valuation date. If the Notes are subject to an automatic call, UBS will pay on the applicable call settlement date a cash payment per Note

equal to the call price for the relevant observation date. The call return increases the longer the Notes are outstanding. Following an automatic call, no further payments will be owed to you under the Notes.

Contingent Repayment of Principal at Maturity with Potential for Full Downside Market Exposure — If by maturity the Notes have not been subject to an automatic call, then the final level of at least one underlying asset is less than its downside threshold and UBS will pay you a cash payment per Note that is less than the principal amount, if anything, resulting in a percentage loss on your initial investment equal to the underlying return of the least performing underlying asset. The contingent repayment of principal applies only if you hold the Notes to maturity. Any payment on the Notes, including any repayment of principal, is subject to the creditworthiness of UBS.

Key Dates

Strike Date	January 14, 2019
Trade Date	January 15, 2019
Settlement Date	January 17, 2019
Observation Dates*	Annually (see page 2)
Final Valuation Date*	January 14, 2022
Maturity Date*	January 20, 2022

* Subject to postponement in the event of a market disruption event, as described in the accompanying product supplement.

Notice to investors: the Notes are significantly riskier than conventional debt instruments. The issuer is not necessarily obligated to repay the principal amount of the Notes at maturity, and the Notes may have the same downside market risk as the least performing underlying asset. This market risk is in addition to the credit risk inherent in purchasing a debt obligation of UBS. You should not purchase the Notes if you do not understand or are not comfortable with the significant risks involved in investing in the Notes.

You should carefully consider the risks described under “Key Risks” beginning on page 4 and under “Risk Factors” beginning on page PS-20 of the accompanying product supplement before purchasing any Notes. Events relating to any of those risks, or other risks and uncertainties, could adversely affect the market value of, and the return on, your Notes. You may lose a significant portion or all of your initial investment in the Notes. The Notes will not be listed or displayed on any securities exchange or any electronic communications network.

Note Offering

These terms relate to the Notes. The initial level of each underlying asset for each offering of the Notes is its closing level on January 14, 2019 and not its closing level on the trade date, and the remaining final terms for each offering of the Notes were also set on that date. The Notes are offered at a minimum investment of 100 Notes at \$10 per Note (representing a \$1,000 investment), and integral multiples of \$10 in excess thereof.

Underlying Assets	Bloomberg Tickers	Call Return Rate*	Initial Levels	Downside Thresholds	Call Threshold Levels	CUSIP	ISIN
Nasdaq-100 Index®	NDX	9.95% per annum	6,541.038	4,905.779, which is 75.00% of the Initial Level	See Page 2	90281C104	US90281C1045
S&P 500® Index	SPX		2,582.61	1,936.96, which is 75.00% of the Initial Level			

* The call return is based on the call return rate and will vary depending on whether, and if called, the call settlement date on which, the Notes are called.

The estimated initial value of the Notes as of the trade date is \$9.707. The estimated initial value of the Notes was determined as of the close of the relevant markets on the date hereof by reference to UBS' internal pricing models, inclusive of the internal funding rate. For more information about secondary market offers and the estimated initial value of the Notes, see "Key Risks — Fair value considerations" and " — Limited or no secondary market and secondary market price considerations" beginning on page 5 herein.

See "Additional Information about UBS and the Notes" on page ii. The Notes will have the terms set forth in the accompanying product supplement relating to the Notes, dated October 31, 2018, the accompanying prospectus and this document. Neither the Securities and Exchange Commission nor any other regulatory body has approved or disapproved of these Notes or passed upon the adequacy or accuracy of this document, the index supplement, the accompanying product supplement or the accompanying prospectus. Any representation to the contrary is a criminal offense.

The Notes are not bank deposits and are not insured by the Federal Deposit Insurance Corporation or any other governmental agency.

Offering of Notes	Issue Price to Public		Underwriting Discount		Proceeds to UBS AG	
	Total	Per Note	Total	Per Note	Total	Per Note
Notes linked to the least performing of the Nasdaq-100 Index [®] and the S&P 500 [®] Index	\$3,000,000.00	\$10.00	\$30,000.00	\$0.10	\$2,970,000.00	\$9.90
UBS Financial Services Inc. UBS Investment Bank						

Additional Information about UBS and the Notes

UBS has filed a registration statement (including a prospectus, as supplemented by an index supplement and a product supplement for the Notes) with the Securities and Exchange Commission (the “SEC”), for the Notes to which this document relates. Before you invest, you should read these documents and any other documents related to the Notes that UBS has filed with the SEC for more complete information about UBS and the Notes. You may obtain these documents for free from the SEC website at www.sec.gov. Our Central Index Key, or CIK, on the SEC website is 0001114446.

You may access these documents on the SEC website at www.sec.gov as follows:

- .. Market-linked Securities product supplement dated October 31, 2018:
<http://www.sec.gov/Archives/edgar/data/1114446/000091412118002085/ub47016353-424b2.htm>
- .. Index Supplement dated October 31, 2018:
<http://www.sec.gov/Archives/edgar/data/1114446/000091412118002083/ub46174419-424b2.htm>
- .. Prospectus dated October 31, 2018:
<http://www.sec.gov/Archives/edgar/data/1114446/000119312518314003/d612032d424b3.htm>

References to “UBS”, “we”, “our” and “us” refer only to UBS AG and not to its consolidated subsidiaries. In this document, “Step Down Trigger Autocallable Notes” or the “Notes” refer to the Notes that are offered hereby. Also, references to the “accompanying product supplement” or “Market-linked Securities product supplement” mean the UBS product supplement, dated October 31, 2018, references to the “index supplement” mean the UBS index supplement, dated October 31, 2018 and references to “accompanying prospectus” mean the UBS prospectus, titled “Debt Securities and Warrants”, dated October 31, 2018.

This document, together with the documents listed above, contains the terms of the Notes and supersedes all other prior or contemporaneous oral statements as well as any other written materials including all other prior pricing terms, correspondence, trade ideas, structures for implementation, sample structures, brochures or other educational materials of ours. You should carefully consider, among other things, the matters set forth in “Key Risks” beginning on page 4 and in “Risk Factors” beginning on page PS-9 of the accompanying product supplement, as the Notes involve risks not associated with conventional debt securities. We urge you to consult your investment, legal, tax, accounting and other advisors before deciding to invest in the Notes.

If there is any inconsistency between the terms of the Notes described in the accompanying prospectus, the accompanying product supplement, the accompanying index supplement and this document, the following hierarchy will govern: first, this document; second, the accompanying product supplement; third, the accompanying index supplement; and last, the accompanying prospectus.

UBS reserves the right to change the terms of, or reject any offer to purchase, the Notes prior to their issuance. In the event of any changes to the terms of the Notes, UBS will notify you and you will be asked to accept such changes in connection with your purchase. You may also choose to reject such changes in which case UBS may reject your offer to purchase.

Investor Suitability

The Notes may be suitable for you if:

You fully understand the risks inherent in an investment in the Notes, including the risk of loss of a significant portion or all of your initial investment.

You understand and accept that an investment in the Notes is linked to the performance of the least performing underlying asset and not a basket of the underlying assets, that you will be exposed to the individual market risk of each underlying asset on the specified observation dates, including the final valuation date, and that you may lose a significant portion or all of your initial investment if the final level of any underlying asset is less than its downside threshold.

You can tolerate a loss of a significant portion or all of your initial investment and are willing to make an investment that may have the same downside market risk as a hypothetical investment in the least performing underlying asset or the stocks comprising the least performing underlying asset.

You are willing to invest in the Notes based on the call threshold levels (which are higher prior to the final valuation date) and downside thresholds indicated on the cover hereof.

You believe that the closing level of each underlying asset will be equal to or greater than its call threshold level on one of the specified observation dates, including the final valuation date, and you believe that the level of each underlying asset will appreciate over the term of the Notes by a percentage that is less than the call return rate indicated on the cover hereof.

You can accept that the risks of each underlying asset are not mitigated by the performance of any other underlying asset and the risks of investing in Notes with a return based on the performance of multiple underlying assets.

You understand and accept that you will not participate in any appreciation of any underlying asset, that your potential return is limited to the call return and you are willing to invest based on the call return rate indicated on the cover hereof.

You can tolerate fluctuations in the price of the Notes prior to maturity that may be similar to or exceed the downside fluctuations in the levels of the underlying assets.

You do not seek guaranteed current income from your investment and are willing to forgo any dividends paid on the stocks comprising the underlying assets (the "underlying equity constituents").

You are willing to invest in Notes that may be subject to an automatic call and you are otherwise willing to hold such Notes to maturity and you accept that there may be little or no secondary market for the Notes.

You understand and are willing to accept the risks associated with the underlying assets.

You are willing to assume the credit risk of UBS for all payments under the Notes, and understand that if UBS defaults on its obligations you may not receive any amounts due to you including any repayment of principal.

You understand that the estimated initial value of the Notes determined by our internal pricing models is lower than the issue price and that should UBS Securities LLC or any affiliate make secondary markets for the Notes, the price (not including their customary bid-ask spreads) will temporarily exceed the internal pricing model price.

The Notes may not be suitable for you if:

You do not fully understand the risks inherent in an investment in the Notes, including the risk of loss of a significant portion or all of your initial investment.

You do not understand or are unwilling to accept that an investment in the Notes is linked to the performance of the least performing underlying asset and not a basket of the underlying assets, that you will be exposed to the individual market risk of each underlying asset on the specified observation dates, including the final valuation date, or that you may lose a significant portion or all of your initial investment if the final level of any underlying asset is less than its downside threshold.

You require an investment designed to provide a full return of principal at maturity.

You cannot tolerate a loss of all or a significant portion of your investment and you are not willing to make an investment that may have the same downside market risk as an investment in the least performing underlying asset or its underlying equity constituents.

You are unwilling to invest in the Notes based on the call threshold levels (which are higher prior to the final valuation date) or downside thresholds indicated on the cover hereof.

You believe that the level of at least one underlying asset will decline during the term of the Notes and is likely to be less than its call threshold level on the specified observation dates, including the final valuation date or, that the level of each underlying asset will appreciate over the term of the Notes by a percentage that is greater than the call return rate indicated on the cover hereof.

You cannot accept that the risks of each underlying asset are not mitigated by the performance of any other underlying asset or the risks of investing in Notes with a return based on the performance of multiple underlying assets.

You believe that the final level of any underlying asset will be less than its downside threshold on the final valuation date.

You seek an investment that participates in the full appreciation in the levels of the underlying assets or that has unlimited return potential, or you are unwilling to invest based on the call return rate indicated on the cover hereof.

You cannot tolerate fluctuations in the price of the Notes prior to maturity that may be similar to or exceed the downside fluctuations of the underlying assets.

You seek guaranteed current income from this investment or prefer to receive any dividends paid on the underlying equity constituents.

You are unable or unwilling to invest in Notes that may be subject to an automatic call, you are otherwise unable or unwilling to hold the Notes to maturity or you seek an investment for which there will be an active secondary market for the Notes.

You do not understand or are unwilling to accept the risks associated with the underlying assets.

You are not willing to assume the credit risk of UBS for all payments under the Notes, including any repayment of principal.

The suitability considerations identified above are not exhaustive. Whether or not the Notes are a suitable investment for you will depend on your individual circumstances and you should reach an investment decision only after you and your investment, legal, tax, accounting and other advisors have carefully considered the suitability of an investment in the Notes in light of your particular circumstances. You should review “Information About the Underlying Assets” herein for more information on the underlying assets. You should also review carefully the “Key Risks” section herein for risks related to an investment in the Notes.

Final Terms

Issuer	UBS AG London Branch
Principal Amount	\$10.00 per Note
Term	Approximately 3 years, subject to an automatic call.
Underlying Assets	The Nasdaq-100 Index® and the S&P 500® Index.
Automatic Call Feature	UBS will automatically call the Notes if the closing level of each underlying asset on any observation date, including the final valuation date, is equal to or greater than its call threshold level. If the Notes are subject to an automatic call, UBS will pay on the call settlement date a cash payment per Note equal to the call price for the relevant observation date. Following an automatic call, no further payments will be made on the Notes.
Call Return Rate	9.95% per annum.

Call Return The call return increases the longer the Notes are outstanding and is based upon the call return rate.

Call Price The call price equals the principal amount per Note plus the applicable call return.

The table below reflects the call return rate of 9.95% per annum.

Observation Date ⁽¹⁾	Call Settlement Date ⁽¹⁾⁽²⁾	Call Return	Call Price (per Note)
January 14, 2020	January 16, 2020	9.95%	\$10.995
January 14, 2021	January 19, 2021	19.90%	\$11.990
Final Valuation Date	Maturity Date	29.85%	\$12.985

⁽¹⁾ Subject to the market disruption event provisions set forth in the accompanying product supplement.

⁽²⁾ Two business days following the relevant observation date, except that the call settlement date for the final valuation date is the maturity date.

If the Notes are not subject to an automatic call, then the final level of at least one underlying asset is less than its downside threshold and UBS will pay you a cash payment that is less than the principal amount, if anything, equal to:

Payment at Maturity (per Note) $\$10.00 \times (1 + \text{Underlying Return of the Least Performing Underlying Asset})$

In this scenario, you will suffer a percentage loss on your initial investment equal to the underlying return of the least performing underlying asset, regardless of the underlying return of any other underlying asset.

Least Performing Underlying Asset The underlying asset with the lowest underlying return as compared to any other underlying asset.
For each underlying asset, the quotient, expressed as a percentage, of the following formula:

Underlying Return $\frac{\text{Final Level} - \text{Initial Level}}{\text{Initial Level}}$

Call Threshold Level ⁽¹⁾	For each observation date prior to the final valuation date, a level of each underlying asset equal to its initial level and, for the final valuation date, a level of each underlying asset equal to its downside threshold.
Downside Threshold ⁽¹⁾	For each underlying asset, a specified level that is less than its initial level, based on a percentage of the initial level as indicated on the cover hereof.
Initial Level ⁽¹⁾	The closing level of each underlying asset on January 14, 2019, as determined by the calculation agent and as indicated on the cover hereof. The initial level for each underlying asset is its closing level on January 14, 2019 and not its closing level on the trade date.
Final Level ⁽¹⁾	The closing level of each underlying asset on the final valuation date.

⁽¹⁾ As determined by the calculation agent and as may be adjusted as described under “General Terms of the Notes — Discontinuance of or Adjustment to an Underlying Index; Alteration of Method of Calculation”, as described in the accompanying product supplement.

Investment Timeline

Trade Date

The initial level of each underlying asset is observed and the final terms of the Notes are set on January 14, 2019.

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The Notes will be subject to an automatic call if the closing level of each underlying asset on any observation date, including the final valuation date, is equal to or greater than its call threshold level, which is higher for observation dates prior to the final valuation date.

Observation Dates (Annually)

If the Notes are subject to an automatic call, UBS will pay on the call settlement date a cash payment per Note equal to the call price for the relevant observation date. Following an automatic call, no further payments will be made on the Notes.

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The final level of each underlying asset is observed on the final valuation date and the underlying return of each underlying asset is calculated.

Maturity date

If the Notes are not subject to an automatic call, then the final level of at least one underlying asset is less than its downside threshold and UBS will pay you a cash payment that is less than the principal amount, if anything, equal to:

$\$10.00 \times (1 + \text{Underlying Return of the Least Performing Underlying Asset})$

In this scenario, you will suffer a percentage loss on your initial investment equal to the underlying return of the least performing underlying asset, regardless of the underlying return of any other underlying asset.

Investing in the Notes involves significant risks. You may lose a significant portion or all of your initial investment. Any payment on the Notes, including any repayment of principal, is subject to the creditworthiness of UBS. If UBS were to default on its payment obligations, you may not receive any amounts owed to you under the Notes and you could lose all of your initial investment.

If the Notes are not subject to an automatic call, you will lose a significant portion or all of your initial investment because then the final level of at least one underlying asset is less than its downside threshold. In this scenario, you will lose a percentage of your initial investment equal to the underlying return of the least performing underlying asset and, in extreme situations, you could lose all of your initial investment. You will be exposed to the market risk of each underlying asset on each observation date, including the final valuation date, and any decline in the level of one underlying asset may negatively affect your return and will not be offset or mitigated by a lesser decline or any potential increase in the level of any other underlying asset.

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Key Risks

An investment in the Notes involves significant risks. Investing in the Notes is not equivalent to a hypothetical investment in the least performing underlying asset or its underlying equity constituents. Some of the key risks that apply to the Notes are summarized below, but we urge you to read the more detailed explanation of risks relating to the Notes in the “Risk Factors” section of the accompanying product supplement. We also urge you to consult your investment, legal, tax, accounting and other advisors before you invest in the Notes.

Risk of loss at maturity — The Notes differ from ordinary debt securities in that UBS will not necessarily repay the principal amount of the Notes at maturity. If the Notes are not subject to an automatic call, then the final level of at least one underlying asset is less than its downside threshold and you will lose a percentage of your initial investment equal to the underlying return of the least performing underlying asset and, in extreme situations, you could lose all of your initial investment.

The contingent repayment of principal applies only at maturity — You should be willing to hold your Notes to maturity. If you are able to sell your Notes prior to an automatic call or maturity in the secondary market, you may have to sell them at a loss relative to your initial investment even if the level of each underlying asset at that time is equal to or greater than its downside threshold and call threshold level. All payments on the Notes are subject to the creditworthiness of UBS.

- **No interest payments** — UBS will not pay any interest with respect to the Notes.

Your potential return on the Notes is limited to any call return and you will not participate in any appreciation of any underlying asset or underlying equity constituent — The return potential of the Notes is limited to the pre-specified call return resulting from an automatic call regardless of any appreciation of any underlying asset. Investors will not participate in any appreciation in the closing level of any underlying asset from its initial level. The Notes will only be subject to an automatic call if the closing level or the final level, as applicable, of each underlying asset is equal to or greater than its call threshold level, which is higher for observation dates prior to the final valuation date. In addition, because the call return increases the longer the Notes have been outstanding, the call price payable with respect to earlier observation dates is less than the call price payable with respect to later observation dates. The earlier a Note is subject to an automatic call, the lower your return will be. Because the Notes may be subject to an automatic call as early as the first potential call settlement date, the total return on the Notes could be less than if the Notes remained outstanding until maturity. Furthermore, if the Notes are not subject to an automatic call, you will be subject to the decline in the level of the least performing underlying asset even though you cannot participate in any appreciation in the level of any underlying asset. As a result, the return on an investment in the Notes could be less than the return on a hypothetical direct investment in any or all of the underlying assets or underlying equity constituents. In addition, as an owner of the Notes, you will not have voting rights or any other rights of a holder of any underlying equity constituent.

A higher call return rate or lower downside thresholds or call threshold levels may reflect greater expected volatility of each underlying asset, and greater expected volatility generally indicates an increased risk of loss at maturity — The economic terms for the Notes, including the call return rate, call threshold levels and downside thresholds, are based, in part, on the expected volatility of each underlying asset at the time the terms of the Notes are set. “Volatility” refers to the frequency and magnitude of changes in the level of each underlying asset. The greater the expected volatility of each underlying asset as of the trade date, the greater the expectation is as of that date that the closing level or the final level, as applicable, of each underlying asset could be less than its call threshold level on any observation date (including the final valuation date) and that the final level of each underlying asset could be less than its downside threshold on the final valuation date and, as a consequence, indicates an increased risk of the Notes not being subject to an automatic call and an increased risk of loss, respectively. All things being equal, this greater expected volatility will generally be reflected in a higher call return rate than the yield payable on our conventional debt securities with a similar maturity or on otherwise comparable securities, and/or lower downside thresholds and/or call threshold levels than those terms on otherwise comparable securities. Therefore, a relatively higher call return rate may indicate an increased risk of loss. Further, relatively lower downside thresholds and/or call threshold levels may not necessarily indicate that the Notes have a greater likelihood of a return of principal at maturity and/or paying the call return. You should be willing to accept the downside market risk of the least performing underlying

asset and the potential to lose a significant portion or all of your initial investment.

Reinvestment risk — The Notes will be subject to an automatic call if the closing level of each underlying asset is equal to or greater than its call threshold level on any observation date set forth herein. Because the Notes could be subject to an automatic call as early as the first potential call settlement date, the term of your investment may be limited. In the event that the Notes are subject to an automatic call, there is no guarantee that you would be able to reinvest the proceeds at a comparable return and/or with a comparable call return rate for a similar level of risk. In addition, to the extent you are able to reinvest such proceeds in an investment comparable to the Notes, you may incur transaction costs such as dealer discounts and hedging costs built into the price of the new securities. Generally, however, the longer the Notes remain outstanding, the less likely the Notes will be subject to an automatic call due to the decline in the level of an underlying asset and the shorter time remaining for the level of any such underlying asset to recover. Such periods generally coincide with a period of greater risk of principal loss on your Notes.

You are exposed to the market risk of each underlying asset — Your return on the Notes is not linked to a basket consisting of the underlying assets. Rather, it will be contingent upon the performance of each underlying asset. Unlike an instrument with a return linked to a basket of indices, common stocks or other underlying securities, in which risk is mitigated and diversified among all of the components of the basket, you will be exposed equally to the risks related to each underlying asset. Poor performance by any underlying asset over the term of the Notes will negatively affect your return and will not be offset or mitigated by a positive performance by any other underlying asset. For instance, you will receive a negative return on the Notes equal to the underlying return of the least performing underlying asset if the final level of any underlying asset is less than its downside threshold, even if the underlying return of another underlying asset is positive or has not declined as much. Accordingly, your investment is subject to the market risk of each underlying asset.

Because the Notes are linked to the least performing underlying asset, you are exposed to a greater risk of not receiving the call return and losing a significant portion or all of your initial investment at maturity than if the Notes were linked to a single underlying asset or fewer underlying assets — The risk that you will not receive the call return and will lose a significant portion or all of your initial investment in the Notes is greater if you invest in the Notes than the risk of investing in substantially similar securities that are linked to the performance of only one underlying asset or fewer underlying assets, as applicable. With more underlying assets, it is more likely that the closing level or final level of an underlying asset will be less than its call threshold level or downside threshold on any observation date or the final valuation date, respectively, than if the Notes were linked to a single underlying asset or fewer underlying assets, as applicable.

In addition, the lower the correlation is between the performance of a pair of underlying assets, the more likely it is that one of the underlying assets will decline in value to a closing level or final level, as applicable, that is less than its call threshold level and downside threshold on any observation date or on the final valuation date. Although the correlation of the underlying assets' performance may change over the term of the Notes, the economic terms of the Notes, including the call return rate, downside thresholds and call threshold levels are determined, in part, based on the correlation of the underlying assets' performance calculated using our internal models at the time when the terms of the Notes are finalized. All things being equal, a higher call return rate and lower downside thresholds and call threshold levels are generally associated with lower correlation of the underlying assets. Therefore, if the performance of a pair of underlying assets is not correlated to each other or is negatively correlated, the risk that you will not receive the call return and that the final level of any underlying asset is less than its downside threshold will occur is even greater despite a lower call threshold level and downside threshold. Therefore, it is more likely that you will not receive the call return and that you will lose a significant portion or all of your initial investment at maturity.

Credit risk of UBS — The Notes are unsubordinated, unsecured debt obligations of UBS and are not, either directly or indirectly, an obligation of any third party. Any payment to be made on the Notes, including any repayment of principal, depends on the ability of UBS to satisfy its obligations as they come due. As a result, UBS' actual and perceived creditworthiness may affect the market value of the Notes. If UBS were to default on its obligations, you may not receive any amounts owed to you under the terms of the Notes and you could lose all of your initial investment.

Market risk — The return on the Notes, which may be negative, is directly linked to the performance of the underlying assets and indirectly linked to the performance of the underlying equity constituents. The levels of the underlying assets can rise or fall sharply due to factors specific to each underlying asset or its underlying equity constituents, such as stock price volatility, earnings and financial conditions, corporate, industry and regulatory developments, management changes and decisions and other events, as well as general market factors, such as general stock or commodity market levels and volatility, interest rates and economic and political conditions.

Fair value considerations.

The issue price you pay for the Notes exceeds their estimated initial value — The issue price you pay for the Notes will exceed their estimated initial value as of the trade date due to the inclusion in the issue price of the underwriting discount, hedging costs, issuance costs and projected profits. As of the close of the relevant markets on the trade date, we have determined the estimated initial value of the Notes by reference to our internal pricing models and the estimated initial value of the Notes is set forth in this pricing supplement. The pricing models used to determine the estimated initial value of the Notes incorporate certain variables, including the levels of the underlying assets, the volatility of the underlying assets, any dividends paid on the underlying equity constituents, the correlation between the underlying assets, prevailing interest rates, the term of the Notes and our internal funding rate. Our internal funding rate is typically lower than the rate we would pay to issue conventional fixed or floating rate debt securities of a similar term. The underwriting discount, hedging costs, issuance costs, projected profits and the difference in rates will reduce the economic value of the Notes to you. Due to these factors, the estimated initial value of the Notes as of the trade date is less than the issue price you pay for the Notes.

The estimated initial value is a theoretical price; the actual price that you may be able to sell your Notes in any secondary market (if any) at any time after the trade date may differ from the estimated initial value — The value of your Notes at any time will vary based on many factors, including the factors described above and in “— Market risk” above and is impossible to predict. Furthermore, the pricing models that we use are proprietary and rely in part on certain assumptions about future events, which may prove to be incorrect. As a result, after the trade date, if you attempt to sell the Notes in the secondary market, the actual value you would receive may differ, perhaps materially, from the estimated initial value of the Notes determined by reference to our internal pricing models. The estimated initial value of the Notes does not represent a minimum or maximum price at which we or any of our affiliates would be willing to purchase your Notes in any secondary market at any time.

Our actual profits may be greater or less than the differential between the estimated initial value and the issue price of the Notes as of the trade date — We may determine the economic terms of the Notes, as well as hedge our obligations, at least in part, prior to the trade date. In addition, there may be ongoing costs to us to maintain and/or

adjust any hedges and such hedges are often imperfect. Therefore, our actual profits (or potentially, losses) in issuing the Notes cannot be determined as of the trade date and any such differential between the estimated initial value and the issue price of the Notes as of the trade date does not reflect our actual profits. Ultimately, our actual profits will be known only at the maturity of the Notes.

- **Limited or no secondary market and secondary market price considerations.**

There may be little or no secondary market for the Notes — The Notes will not be listed or displayed on any securities exchange or any electronic communications network. UBS Securities LLC and its affiliates intend, but are not required, to make a market for the Notes and may stop making a market at any time. If you are able to sell your Notes prior to maturity, you may have to sell them at a substantial loss. Furthermore, there can be no assurance that a secondary market for the Notes will develop. The estimated initial value of the Notes does not represent a minimum or maximum price at which we or any of our affiliates would be willing to purchase your Notes in any secondary market at any time.

The price at which UBS Securities LLC and its affiliates may offer to buy the Notes in the secondary market (if any) may be greater than UBS' valuation of the Notes at that time, greater than any other secondary market prices provided by unaffiliated dealers (if any) and, depending on your broker, greater than the valuation provided on your customer account statements — For a limited period of time following the issuance of the Notes, UBS Securities LLC or its affiliates may offer to buy or sell such Notes at a price that exceeds (i) our valuation of the Notes at that time based on our internal pricing models, (ii) any secondary market prices provided by unaffiliated dealers (if any) and (iii) depending on your broker, the valuation provided on customer account statements. The price that UBS Securities LLC may initially offer to buy such Notes following issuance will exceed the valuations indicated by our internal pricing models due to the inclusion for a limited period of time of the aggregate value of the underwriting discount, hedging costs, issuance costs and theoretical projected trading profit. The portion of such amounts included in our price will decline to zero on a straight line basis over a period ending no later than the date specified under “Supplemental Plan of Distribution (Conflicts of Interest); Secondary Markets (if any).” Thereafter, if UBS Securities LLC or an affiliate makes secondary markets in the Notes, it will do so at prices that reflect our estimated value determined by reference to our internal pricing models at that time. The

temporary positive differential relative to our internal pricing models arises from requests from and arrangements made by UBS Securities LLC with the selling agents of structured debt securities such as the Notes. As described above, UBS Securities LLC and its affiliates intend, but are not required, to make a market for the Notes and may stop making a market at any time. The price at which UBS Securities LLC or an affiliate may make secondary markets at any time (if at all) will also reflect its then current bid-ask spread for similar sized trades of structured debt securities. UBS Financial Services Inc. and UBS Securities LLC reflect this temporary positive differential on their customer statements. Investors should inquire as to the valuation provided on customer account statements provided by unaffiliated dealers.

Economic and market factors affecting the terms and market price of Notes prior to maturity — Because structured notes, including the Notes, can be thought of as having a debt component and a derivative component, factors that influence the values of debt instruments and options and other derivatives will also affect the terms and features of the Notes at issuance and the market price of the Notes prior to maturity. These factors include the level of each underlying asset and the underlying equity constituents; the volatility of each underlying asset and the underlying equity constituents; any dividends paid on the underlying equity constituents; the correlation between the underlying assets; the time remaining to the maturity of the Notes; interest rates in the markets; geopolitical conditions and economic, financial, political, force majeure and regulatory or judicial events; whether each underlying asset is currently or has been less than its call threshold level; the availability of comparable instruments; the creditworthiness of UBS; the then current bid-ask spread for the Notes and the factors discussed under “— Potential conflict of interest” below. These and other factors are unpredictable and interrelated and may offset or magnify each other.

Impact of fees and the use of internal funding rates rather than secondary market credit spreads on secondary market prices — All other things being equal, the use of the internal funding rates described above under “—Fair value considerations” as well as the inclusion in the issue price of the underwriting discount, hedging costs, issuance costs and any projected profits are, subject to the temporary mitigating effect of UBS Securities LLC’s and its affiliates’ market making premium, expected to reduce the price at which you may be able to sell the Notes in any secondary market.

The Notes are subject to non-U.S. securities market risk — The Notes are subject to risks associated with non-U.S. companies and non-U.S. securities markets because the Nasdaq-100 is comprised, in part, of non-U.S. companies that are traded on various non-U.S. exchanges. Generally, non-U.S. securities markets may be more volatile than U.S. securities markets, and market developments may affect non-U.S. markets differently from U.S. securities markets. Direct or indirect government intervention to stabilize these non-U.S. markets, as well as cross shareholdings in non-U.S. companies, may affect trading prices and volumes in those markets. There is generally less publicly available information about non-U.S. companies than about those U.S. companies that are subject to the reporting requirements of the SEC, and non-U.S. companies are subject to accounting, auditing and financial reporting standards and requirements that differ from those applicable to U.S. reporting companies. Securities prices in non-U.S. countries are subject to political, economic, financial and social factors that may be unique to the particular country. These factors, which could negatively affect the non-U.S. securities markets, include the possibility of recent or future changes in the non-U.S. government’s economic and fiscal policies, the possible imposition of, or changes in, currency exchange laws or other non-U.S. laws or restrictions applicable to non-U.S. companies or investments in non-U.S. equity securities and the possibility of fluctuations in the rate of exchange between currencies. Moreover, certain aspects of a particular non-U.S. economy may differ favorably or unfavorably from the U.S. economy in important respects, such as growth of gross national product, rate of inflation, capital reinvestment, resources and self-sufficiency.

There can be no assurance that the investment view implicit in the Notes will be successful — It is impossible to predict whether and the extent to which the levels of the underlying assets will rise or fall and there can be no assurance that the closing level or the final level, as applicable, of each underlying asset will be equal to or greater than its call threshold level on any observation date, including the final valuation date. The levels of the underlying assets will be influenced by complex and interrelated political, economic, financial and other factors that affect the issuer of an underlying equity constituent (“underlying constituent issuer”). You should be willing to accept the risks

associated with the relevant markets tracked by each such underlying asset in general and its underlying equity constituents in particular, and the risk of losing a significant portion or all of your initial investment.

The underlying assets reflect price return, not total return — The return on your Notes is based on the performance of the underlying assets, which reflect the changes in the market prices of the underlying equity constituents. It is not, however, linked to a “total return” index or strategy, which, in addition to reflecting those price returns, would also reflect dividends paid on the underlying equity constituents. The return on your Notes will not include such a total return feature or dividend component.

Changes affecting the underlying assets could have an adverse effect on the value of the Notes — The policies of each index sponsor as specified under “Information About the Underlying Indices” (together, the “index sponsors”), concerning additions, deletions and substitutions of the underlying equity constituents and the manner in which the index sponsor takes account of certain changes affecting those underlying equity constituents may adversely affect the levels of the underlying assets. The policies of the index sponsors with respect to the calculation of the underlying assets could also adversely affect the levels of the underlying assets. The index sponsors may discontinue or suspend calculation or dissemination of the underlying assets. Any such actions could have an adverse effect on the value of the Notes.

UBS cannot control actions by the index sponsors and the index sponsors have no obligation to consider your interests — UBS and its affiliates are not affiliated with the index sponsors and have no ability to control or predict their actions, including any errors in or discontinuation of public disclosure regarding methods or policies relating to the calculation of the underlying assets. The index sponsors are not involved in the Notes offering in any way and has no obligation to consider your interest as an owner of the Notes in taking any actions that might affect the market value of your Notes.

Potential UBS impact on an underlying asset or any underlying equity constituent — Trading or transactions by UBS or its affiliates in an underlying asset or underlying equity constituent, listed and/or over-the-counter options, futures, exchange-traded funds or other instruments with returns linked to the performance of that underlying asset or underlying equity constituent, may adversely affect the market price(s) or level(s) of the applicable underlying asset on any observation date, including the final valuation date and, therefore, the market value of the Notes, any payout pursuant to an automatic call or at maturity.

Potential conflict of interest — UBS and its affiliates may engage in business with any underlying constituent issuer, which may present a conflict between the obligations of UBS and you, as a holder of the Notes. There are also potential conflicts of interest between you and the calculation agent, which will be an affiliate of UBS and which will make potentially subjective judgments. The calculation agent will determine whether the Notes are subject to an automatic call and the payment at maturity of the Notes, if any, based on observed levels of the underlying assets. The calculation agent can postpone the determination of the terms of the Notes on the trade date, or the closing levels of the underlying assets on any observation date (including the final valuation date). As UBS determines the economic terms of the Notes, including the call return rate, call threshold levels and downside thresholds, and such terms include the underwriting discount, hedging costs, issuance costs and projected profits, the Notes represent a package of economic terms. There are other potential conflicts of interest insofar as an investor could potentially get better economic terms if that investor entered into exchange-traded and/or OTC derivatives or other instruments with third parties, assuming that such instruments were available and the investor had the ability to assemble and enter into such instruments.

Potentially inconsistent research, opinions or recommendations by UBS — UBS and its affiliates publish research from time to time on financial markets and other matters that may influence the value of the Notes, or express opinions or provide recommendations that are inconsistent with purchasing or holding the Notes. Any research, opinions or recommendations expressed by UBS or its affiliates may not be consistent with each other and may be modified from time to time without notice. Investors should make their own independent investigation of the merits of investing in the Notes and the underlying assets to which the Notes are linked.

Dealer incentives — UBS and its affiliates act in various capacities with respect to the Notes. We and our affiliates may act as a principal, agent or dealer in connection with the sale of the Notes. Such affiliates, including the sales representatives, will derive compensation from the distribution of the Notes and such compensation may serve as an incentive to sell these Notes instead of other investments. We will pay total underwriting compensation in an amount equal to the underwriting discount listed on the cover hereof per Note to any of our affiliates acting as agents or dealers in connection with the distribution of the Notes. Given that UBS Securities LLC and its affiliates temporarily maintain a market making premium, it may have the effect of discouraging UBS Securities LLC and its affiliates from recommending sale of your Notes in the secondary market.

The Notes are not bank deposits — An investment in the Notes carries risks which are very different from the risk profile of a bank deposit placed with UBS or its affiliates. The Notes have different yield and/or return, liquidity and risk profiles and would not benefit from any protection provided to deposits.

If UBS experiences financial difficulties, FINMA has the power to open restructuring or liquidation proceedings in respect of, and/or impose protective measures in relation to, UBS, which proceedings or measures may have a material adverse effect on the terms and market value of the Notes and/or the ability of UBS to make payments thereunder — The Swiss Financial Market Supervisory Authority (“FINMA”) has broad statutory powers to take measures and actions in relation to UBS if (i) it concludes that there is justified concern that UBS is over-indebted or has serious liquidity problems or (ii) UBS fails to fulfil the applicable capital adequacy requirements (whether on a standalone or consolidated basis) after expiry of a deadline set by FINMA. If one of these pre-requisites is met, FINMA is authorized to open restructuring proceedings or liquidation (bankruptcy) proceedings in respect of, and/or impose protective measures in relation to, UBS. The Swiss Banking Act grants significant discretion to FINMA in connection with the aforementioned proceedings and measures. In particular, a broad variety of protective measures may be imposed by FINMA, including a bank moratorium or a maturity postponement, which

measures may be ordered by FINMA either on a stand-alone basis or in connection with restructuring or liquidation proceedings. The resolution regime of the Swiss Banking Act is further detailed in the FINMA Banking Insolvency Ordinance (“BIO-FINMA”). In a restructuring proceeding, FINMA, as resolution authority, is competent to approve the resolution plan. The resolution plan may, among other things, provide for (a) the transfer of all or a portion of UBS’ assets, debts, other liabilities and contracts (which may or may not include the contractual relationship between UBS and the holders of Notes) to another entity, (b) a stay (for a maximum of two business days) on the termination of contracts to which UBS is a party, and/or the exercise of (w) rights to terminate, (x) netting rights, (y) rights to enforce or dispose of collateral or (z) rights to transfer claims, liabilities or collateral under contracts to which UBS is a party, (c) the conversion of UBS’ debt and/or other obligations, including its obligations under the Notes, into equity (a “debt-to-equity” swap), and/or (d) the partial or full write-off of obligations owed by UBS (a “write-off”), including its obligations under the Notes. The BIO-FINMA provides that a debt-to-equity swap and/or a write-off of debt and other obligations (including the Notes) may only take place after (i) all debt instruments issued by UBS qualifying as additional tier 1 capital or tier 2 capital have been converted into equity or written-off, as applicable, and (ii) the existing equity of UBS has been fully cancelled. While the BIO-FINMA does not expressly address the order in which a write-off of debt instruments other than debt instruments qualifying as additional tier 1 capital or tier 2 capital should occur, it states that debt-to-equity swaps should occur in the following order: first, all subordinated claims not qualifying as regulatory capital; second, all other claims not excluded by law from a debt-to-equity swap (other than deposits); and third, deposits (in excess of the amount privileged by law). However, given the broad discretion granted to FINMA as the resolution authority, any restructuring plan in respect of UBS could provide that the claims under or in connection with the Notes will be partially or fully converted into equity or written-off, while preserving other obligations of UBS that rank *pari passu* with, or even junior to, UBS’ obligations under the Notes. Consequently, holders of Notes may lose all of some of their investment in the Notes. In the case of restructuring proceedings with respect to a systemically important Swiss bank (such as UBS), the creditors whose claims are affected by the restructuring plan will not have a right to vote on, reject, or seek the suspension of the restructuring plan. In addition, if a restructuring plan has been approved by FINMA, the rights of a creditor to seek judicial review of the restructuring plan (e.g., on the grounds that the plan would unduly prejudice the rights of holders of Notes or otherwise be in violation of the Swiss Banking Act) are very limited. In particular, a court may not suspend the implementation of the restructuring plan. Furthermore, even if a creditor successfully challenges the restructuring plan, the court can only require the relevant creditor to be compensated *ex post* and there is currently no guidance as to on what basis such compensation would be calculated or how it would be funded.

Uncertain tax treatment — Significant aspects of the tax treatment of the Notes are uncertain. You should consult your tax advisor about your tax situation. See “What are the Tax Consequences of the Securities” herein and “Material U.S. Federal Income Tax Consequences”, including the section “—Securities Treated as Prepaid Derivatives or Prepaid Forwards”, in the accompanying product supplement.

Hypothetical Examples of How the Notes Might Perform

The below examples are based on hypothetical terms. The actual terms are indicated on the cover hereof.

The examples below illustrate the payment upon a call or at maturity for a \$10.00 Note on a hypothetical offering of the Notes, with the following assumptions (amounts may have been rounded for ease of reference):

Principal Amount:	\$10.00
Term:	Approximately 3 years
Call return rate:	6.00% per annum
Observation Dates:	Annually
Initial Level:	
Underlying Asset A:	7,000
Underlying Asset B:	3,000
Call Threshold:	
Underlying Asset A:	<ul style="list-style-type: none"> • For each observation date prior to the final valuation date: 7,000 (which is 100% of the Initial Level) • For the final valuation date: 5,250 (which is 75.00% of the Initial Level)
Underlying Asset B:	<ul style="list-style-type: none"> • For each observation date prior to the final valuation date: 3,000 (which is 100% of the Initial Level) • For the final valuation date: 2,250 (which is 75.00% of the Initial Level)
Downside Threshold:	
Underlying Asset A:	5,250 (which is 75.00% of the Initial Level)
Underlying Asset B:	2,250 (which is 75.00% of the Initial Level)

Example 1 — The Closing Level of each Underlying Asset is equal to or greater than its Call Threshold Level on the Observation Date corresponding to the first Potential Call Settlement Date.

Date	Closing Level	Payment (per Note)
	Underlying Asset A: 7,000 (equal to or greater than Call Threshold Level)	
First Observation Date		\$10.60 (Call Price)
	Underlying Asset B: 3,250 (equal to or greater than Call Threshold Level)	
	Total Payment:	\$10.60 (6.00% total return)

Because the Notes are subject to an automatic call on the first potential call settlement date (which is approximately one year after the trade date), UBS will pay on the corresponding call settlement date a total of \$10.60 per Note (reflecting your principal amount plus the applicable call return), a 6.00% total return on the Notes. You will not receive any further payments on the Notes.

Example 2 — The Closing Level of each Underlying Asset is equal to or greater than its Call Threshold Level on the Observation Date corresponding to the second Potential Call Settlement Date.

Date	Closing Level	Payment (per Note)
	Underlying Asset A: 6,800 (less than Call Threshold Level)	
First Observation Date		\$0
	Underlying Asset B: 2,500 (less than Call Threshold Level)	
Second Observation Date	Underlying Asset A: 7,100 (equal to or greater than Call Threshold Level)	\$11.20 (Call Price)

Underlying Asset B: 3,000 (**equal to or greater than** Call
Threshold Level)

Total Payment:

\$11.20 (12.00% total
return)

Because the Notes are subject to an automatic call on the second potential call settlement date (which is approximately two years after the trade date), UBS will pay on the corresponding call settlement date a total of \$11.20 per Note (reflecting your principal amount plus the applicable call return), a 12.00% total return on the Notes. You will not receive any further payments on the Notes.

Example 3 — The Final Level of each Underlying Asset is equal to or greater than its Call Threshold Level on the Final Valuation Date.

Date	Closing Level	Payment (per Note)
First Observation Date	Underlying Asset A: 6,900 (less than Call Threshold Level)	\$0
Second Observation Date	Underlying Asset B: 2,300 (less than Call Threshold Level) Underlying Asset A: 6,100 (less than Call Threshold Level)	\$0
Final Valuation Date	Underlying Asset B: 3,400 (equal to or greater than Call Threshold Level) Underlying Asset A: 7,250 (equal to or greater than Call Threshold Level and Downside Threshold)	\$11.80 (Call Price)
	Total Payment:	\$11.80 (18.00% total return)

Because the Notes are subject to an automatic call on the final valuation date (which is approximately three years after the trade date), UBS will pay on the corresponding call settlement date (which is also the maturity date) a total of \$11.80 per Note (reflecting your principal amount plus the applicable call return), an 18.00% total return on the Notes.

Example 4 — The Notes are NOT subject to an Automatic Call and the Final Level of an Underlying Asset is less than its Downside Threshold.

Date	Closing Level	Payment (per Note)
First Observation Date	Underlying Asset A: 5,800 (less than Call Threshold Level)	\$0
Second Observation Date	Underlying Asset B: 2,300 (less than Call Threshold Level) Underlying Asset A: 6,400 (less than Call Threshold Level)	\$0
Final Valuation Date	Underlying Asset B: 3,200 (equal to or greater than Call Threshold Level) Underlying Asset A: 7,500 (equal to or greater than Call Threshold Level and Downside Threshold)	\$10.00 x (1 + Underlying Return of the Least Performing Underlying Asset) = \$10.00 x [\$1 + (-60%)]
	Underlying Asset B: 1,200 (less than Call Threshold Level and Downside Threshold)	= \$10.00 x 0.40 = \$4.00 (Payment at Maturity)
	Total Payment:	\$4.00 (60.00% loss)

Because the Notes are not subject to an automatic call, the final level of an underlying asset (Underlying Asset B) is less than its downside threshold, you will be exposed to the underlying return of the least performing underlying asset and, on the maturity date, UBS will pay you \$4.00 per Note, a loss of 60.00% on the Notes.

We make no representation or warranty as to which of the underlying assets will be the least performing underlying asset for the purposes of calculating your actual payment at maturity.

Investing in the Notes involves significant risks. The Notes differ from ordinary debt securities in that UBS is not necessarily obligated to repay the full amount of your initial investment. If the Notes are not subject to an automatic call, you will lose a significant portion or all of your initial investment because if the Notes are not subject to an automatic call, then the final level of at least one underlying asset is less than its downside threshold. In this scenario, you will lose a percentage of your initial investment equal to the underlying return of the least performing underlying asset and, in extreme situations, you could lose all of your initial investment.

You will be exposed to the market risk of each underlying asset on each observation date, including the final valuation date, and any decline in the level of one underlying asset may negatively affect your return and will not be offset or mitigated by a lesser decline or any potential increase in the level of any other underlying asset. Any payment on the Notes, including any payments in respect of an automatic call or any repayment of principal, is subject to the creditworthiness of UBS. If UBS were to default on its payment obligations, you may not receive any amounts owed to you under the Notes and you could lose all of your initial investment.

Information About the Underlying Assets

All disclosures contained in this document regarding each underlying asset for the Notes are derived from publicly available information. UBS has not conducted any independent review or due diligence of any publicly available information with respect to the underlying asset. **You should make your own investigation into the underlying asset.**

Included on the following pages is a brief description of each underlying asset. This information has been obtained from publicly available sources. Set forth below is a table that provides the quarterly closing high and quarterly closing low for each underlying asset. The information given below is for the specified calendar quarters. We obtained the closing level information set forth below from Bloomberg Professional® service (“Bloomberg”) without independent verification. You should not take the historical prices of the underlying asset as an indication of future performance.

Nasdaq-100 Index®

We have derived all information regarding the Nasdaq-100 Index® (“NDX”) contained in this document, including, without limitation, its make-up, method of calculation and changes in its components, from publicly available information. Such information reflects the policies of, and is subject to change by The NASDAQ OMX Group, Inc. and its affiliates (collectively, “NASDAQ OMX”) (the “index sponsor” or “NASDAQ OMX”).

NDX is published by NASDAQ OMX, but NASDAQ OMX has no obligation to continue to publish NDX, and may discontinue publication of NDX at any time.

As discussed more fully in the index supplement under the heading “Underlying Indices and Underlying Asset Publishers – NASDAQ-100 Index®”, NDX includes 100 of the largest domestic and international non-financial securities listed on the NASDAQ Stock Market® (“NASDAQ”) based on market capitalization. NDX includes companies across major industry groups including computer hardware and software, telecommunications, retail and wholesale trade, and biotechnology, but does not contain securities of financial companies, including investment companies.

NDX is calculated under a modified capitalization-weighted methodology. The methodology is expected to retain in general the economic attributes of capitalization-weighting while providing enhanced diversification. To accomplish this, NASDAQ OMX will review the composition of NDX on a quarterly basis and adjust the weightings of Index components using a proprietary algorithm, if certain pre-established weight distribution requirements are not met.

Information from outside sources is not incorporated by reference in, and should not be considered part of, this document or any document incorporated by reference. UBS has not conducted any independent review or due diligence of any publicly available information with respect to NDX.

Historical Information

The following table sets forth the quarterly closing high and quarterly closing low levels for NDX, based on the daily closing levels as reported by Bloomberg, without independent verification. UBS has not conducted any independent review or due diligence of publicly available information obtained from Bloomberg. The closing level of the NDX on January 14, 2019 was 6,541.038. ***Past performance of NDX is not indicative of the future performance of NDX.***

Quarter Begin	Quarter End	Quarterly Closing High	Quarterly Closing Low	Quarterly Close
1/1/2015	3/31/2015	4,483.049	4,089.648	4,333.688
4/1/2015	6/30/2015	4,548.740	4,311.257	4,396.761
7/1/2015	9/30/2015	4,679.675	4,016.324	4,181.060
10/1/2015	12/31/2015	4,719.053	4,192.963	4,593.271

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1/1/2016	3/31/2016	4,497.857	3,947.804	4,483.655
4/1/2016	6/30/2016	4,565.421	4,201.055	4,417.699
7/1/2016	9/30/2016	4,891.363	4,410.747	4,875.697
10/1/2016	12/31/2016	4,965.808	4,660.457	4,863.620
1/1/2017	3/31/2017	5,439.742	4,911.333	5,436.232
4/1/2017	6/30/2017	5,885.296	5,353.586	5,646.917
7/1/2017	9/30/2017	6,004.380	5,596.956	5,979.298
10/1/2017	12/31/2017	6,513.269	5,981.918	6,396.422
1/1/2018	3/31/2018	7,131.121	6,306.100	6,581.126
4/1/2018	6/30/2018	7,280.705	6,390.837	7,040.802
7/1/2018	9/30/2018	7,660.180	7,014.554	7,627.650
10/1/2018	12/31/2018	7,645.453	5,899.354	6,329.964
1/1/2019	1/14/2019*	6,620.942	6,147.127	6,541.038

* The above table only includes data through this date. Accordingly, the “Quarterly Closing High”, “Quarterly Closing Low” and “Quarterly Close” data indicated are for this shortened period only and do not reflect complete data for this calendar quarter.

The graph below illustrates the performance of NDX from January 1, 2009 through January 14, 2019, based on information from Bloomberg. The dotted green line represents its call threshold level of 6,541.038, applicable for each call observation date prior to the final valuation date and the dotted blue line represents its call threshold level applicable on the final valuation date and its downside threshold of 4,905.779, which are equal to 100.00% and 75.00%, respectively, of the initial level. ***Past performance of NDX is not indicative of the future performance of NDX.***

S&P 500® Index

We have derived all information regarding the S&P 500® Index (“SPX”) contained in this document, including, without limitation, its make-up, method of calculation and changes in its components, from publicly available information. Such information reflects the policies of, and is subject to change by S&P Dow Jones Indices LLC (its “index sponsor” or “S&P Dow Jones”).

SPX is published by S&P Dow Jones, but S&P Dow Jones has no obligation to continue to publish SPX, and may discontinue publication of SPX at any time. SPX is determined, comprised and calculated by S&P Dow Jones without regard to the Securities.

As discussed more fully in the index supplement under the heading “Underlying Indices and Underlying Index Publishers — S&P 500® Index”, SPX is intended to provide an indication of the pattern of common stock price movement. The calculation of the value of SPX is based on the relative value of the aggregate market value of the common stock of 500 companies as of a particular time compared to the aggregate average market value of the common stocks of 500 similar companies during the base period of the years 1941 through 1943. Eleven main groups of companies comprise SPX, with the percentage weight of each group in the index as a whole as of December 31, 2018 as follows: Information Technology (20.1%), Health Care (15.5%), Financials (13.3%), Communication Services (10.1%), Consumer Discretionary (9.9%), Industrials (9.2%), Consumer Staples (7.4%), Energy (5.3%), Utilities (3.3%), Real Estate (3.0%) and Materials (2.7%). As of September 28, 2018, the underlier sponsor broadened the current Telecommunication Services Sector and renamed it Communication Services. The renamed Sector includes the existing telecommunication companies, as well as companies selected from the Consumer Discretionary Sector previously currently classified under the Media Industry Group and the Internet & Direct Marketing Retail Sub-Industry, along with select companies currently previously classified in the Information Technology Sector. Effective March 10, 2017, company additions to the underlying asset should have an unadjusted company market capitalization of \$6.1 billion or more (an increase from the previous requirement of an unadjusted company market capitalization of \$5.3 billion or more).

Information from outside sources is not incorporated by reference in, and should not be considered part of, this document or any accompanying prospectus. UBS has not conducted any independent review or due diligence of any publicly available information with respect to the S&P 500® Index.

Historical Information

The following table sets forth the quarterly high and low closing levels for SPX, based on the daily closing levels as reported by Bloomberg, without independent verification. UBS has not undertaken an independent review or due diligence of any publicly available information obtained from Bloomberg. The closing level of SPX on January 14, 2019 was 2,582.61. **Past performance of SPX is not indicative of the future performance of SPX.**

Quarter Begin	Quarter End	Quarterly Closing High	Quarterly Closing Low	Quarterly Close
1/1/2015	3/31/2015	2,117.39	1,992.67	2,067.89
4/1/2015	6/30/2015	2,130.82	2,057.64	2,063.11
7/1/2015	9/30/2015	2,128.28	1,867.61	1,920.03
10/1/2015	12/31/2015	2,109.79	1,923.82	2,043.94
1/1/2016	3/31/2016	2,063.95	1,829.08	2,059.74
4/1/2016	6/30/2016	2,119.12	2,000.54	2,098.86
7/1/2016	9/30/2016	2,190.15	2,088.55	2,168.27
10/1/2016	12/31/2016	2,271.72	2,085.18	2,238.83
1/1/2017	3/31/2017	2,395.96	2,257.83	2,362.72

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4/1/2017	6/30/2017	2,453.46	2,328.95	2,423.41
7/1/2017	9/30/2017	2,519.36	2,409.75	2,519.36
10/1/2017	12/31/2017	2,690.16	2,529.12	2,673.61
1/1/2018	3/31/2018	2,872.87	2,581.00	2,640.87
4/1/2018	6/30/2018	2,786.85	2,581.88	2,718.37
7/1/2018	9/30/2018	2,930.75	2,713.22	2,913.98
10/1/2018	12/31/2018	2,925.51	2,351.10	2,506.85
1/1/2019	1/14/2019*	2,596.64	2,447.89	2,582.61

* The above table only includes data through this date. Accordingly, the “Quarterly Closing High”, “Quarterly Closing Low” and “Quarterly Close” data indicated are for this shortened period only and do not reflect complete data for this calendar quarter.

The graph below illustrates the performance of SPX from January 1, 2009 through January 14, 2019, based on information from Bloomberg. The dotted green line represents its call threshold level of 2,582.61, applicable for each call observation date prior to the final valuation date and the dotted blue line represents its call threshold level applicable on the final valuation date and its downside threshold of 1,936.96, which are equal to 100.00% and 75.00%, respectively, of the initial level. ***Past performance of SPX is not indicative of the future performance of SPX.***

Correlation of the Underlying Assets

The graph below illustrates the daily performance of the underlying assets from January 1, 2009 through January 14, 2019. For comparison purposes, each underlying asset has been normalized to have a closing level of 100 on January 1, 2009 by dividing the closing level of that underlying asset on each trading day by the closing level of that underlying asset on January 1, 2009 and multiplying by 100. We obtained the closing levels used to determine the normalized closing levels set forth below from Bloomberg, without independent verification.

The closer the relationship of the daily returns of the underlying assets over a given period, the more positively correlated those underlying assets are. The lower (or more negative) the correlation among the underlying assets, the less likely it is that those underlying assets will move in the same direction and therefore, the greater the potential for one of those underlying assets to close below its call threshold level on any observation date and below its downside threshold on the final valuation date. This is because the less positively correlated the underlying assets are, the greater the likelihood that at least one of the underlying assets will decrease in value. However, even if the underlying assets have a higher positive correlation, one or more of the underlying assets might close below its call threshold level on any observation date and below its downside threshold on the final valuation date, as the underlying assets may decrease in value together. Although the correlation of the underlying assets' performance may change over the term of the Notes, the correlations referenced in setting the terms of the Notes are calculated using UBS' internal models at the time when the terms of the Notes are set and are not derived from the daily returns of the underlying assets over the period set forth below. A higher call return rate is generally associated with lower correlation of the underlying assets, which reflects a greater potential that the Notes will not be subject to an automatic call and that you will suffer a loss on your investment at maturity. See "Key Risks — A higher call return rate or lower downside thresholds or call return rates may reflect greater expected volatility of each underlying asset, and greater expected volatility generally indicates an increased risk of loss at maturity", "— You are exposed to the market risk of each underlying asset" and "—Because the Notes are linked to the least performing underlying asset, you are exposed to a greater risk of not receiving the call return and losing a significant portion or all of your initial investment at maturity than if the Notes were linked to fewer underlying assets" herein.

Past performance of the underlying assets is not indicative of the future performance of the underlying assets.

What are the Tax Consequences of the Notes?

The U.S. federal income tax consequences of your investment in the Notes are uncertain. There are no statutory provisions, regulations, published rulings or judicial decisions addressing the characterization for U.S. federal income tax purposes of securities with terms that are substantially the same as the Notes. Some of these tax consequences are summarized below, but we urge you to read the more detailed discussion in “Material U.S. Federal Income Tax Consequences”, including the section in the accompanying product supplement and to discuss the tax consequences of your particular situation with your tax advisor. This discussion is based upon the Internal Revenue Code of 1986, as amended (the “Code”), final, temporary and proposed U.S. Treasury Department (the “Treasury”) regulations, rulings and decisions, in each case, as available and in effect as of the date hereof, all of which are subject to change, possibly with retroactive effect. Tax consequences under state, local and non-U.S. laws are not addressed herein. No ruling from the U.S. Internal Revenue Service (the “IRS”) has been sought as to the U.S. federal income tax consequences of your investment in the Notes, and the following discussion is not binding on the IRS.

U.S. Tax Treatment. Pursuant to the terms of the Notes, UBS and you agree, in the absence of a statutory or regulatory change or an administrative determination or judicial ruling to the contrary, to characterize the Notes as prepaid derivative contracts with respect to the underlying assets. If your Notes are so treated, you should generally recognize capital gain or loss upon the taxable disposition of your Notes in an amount equal to the difference between the amount you receive at such time and the amount you paid for your Notes. Such gain or loss should generally be long-term capital gain or loss if you have held your Notes for more than one year (otherwise such gain or loss should be short-term capital gain or loss if held for one year or less). The deductibility of capital losses is subject to limitations.

Based on certain factual representations received from us, our counsel, Cadwalader, Wickersham & Taft LLP, is of the opinion that it would be reasonable to treat your Notes in the manner described above. However, because there is no authority that specifically addresses the tax treatment of the Notes, it is possible that your Notes could alternatively be treated for tax purposes as a single contingent payment debt instrument, or pursuant to some other characterization, such that the timing and character of your income from the Notes could differ materially and adversely from the treatment described above, as described further under “Material U.S. Federal Income Tax Consequences”, including the section — “Securities Treated as Prepaid Derivatives or Prepaid Forwards with Associated Contingent Coupons”, in the accompanying product supplement unless and until such time as the IRS and the Treasury Department determine that some other treatment is more appropriate.

Notice 2008-2. In 2007, the IRS released a notice that may affect the taxation of holders of the Notes. According to Notice 2008-2, the IRS and the Treasury are actively considering whether the holder of an instrument such as the Notes should be required to accrue ordinary income on a current basis. It is not possible to determine what guidance they will ultimately issue, if any. It is possible, however, that under such guidance, holders of the Notes will ultimately be required to accrue income currently in excess of any receipt of contingent coupons and this could be applied on a retroactive basis. The IRS and the Treasury are also considering other relevant issues, including whether additional gain or loss from such instruments should be treated as ordinary or capital, whether non-U.S. holders of such instruments should be subject to withholding tax on any deemed income accruals, and whether the special “constructive ownership rules” of Section 1260 of the Code should be applied to such instruments. Holders are urged to consult their tax advisors concerning the significance, and potential impact, of the above considerations.

Section 1297. We will not attempt to ascertain whether any underlying constituent issuer would be treated as a “passive foreign investment company” (a “PFIC”) within the meaning of Section 1297 of the Code. If any such entity were so treated, certain adverse U.S. federal income tax consequences might apply upon the taxable disposition of a Note. You should refer to information filed with the SEC or the equivalent governmental authority by such entities and consult your tax advisor regarding the possible consequences to you if any such entity is or becomes a PFIC.

Medicare Tax on Net Investment Income. U.S. holders that are individuals, estates, and certain trusts are subject to an additional 3.8% tax on all or a portion of their “net investment income,” which may include any income or gain realized with respect to the Notes, to the extent of their net investment income that when added to their other modified adjusted gross income, exceeds \$200,000 for an unmarried individual, \$250,000 for a married taxpayer filing a joint return (or a surviving spouse), \$125,000 for a married individual filing a separate return or the dollar amount at which the highest tax bracket begins for an estate or trust. The 3.8% Medicare tax is determined in a different manner than the income tax. You should consult your tax advisor as to the consequences of the 3.8% Medicare tax.

Specified Foreign Financial Assets. U.S. holders may be subject to reporting obligations with respect to their Notes if they do not hold their Notes in an account maintained by a financial institution and the aggregate value of their Notes and certain other “specified foreign financial assets” (applying certain attribution rules) exceeds an applicable threshold. Significant penalties can apply if a U.S. holder is required to disclose its Notes and fails to do so.

Non-U.S. Holders. Subject to Section 871(m) of the Code and “FATCA”, discussed below, if you are a non-U.S. holder you should generally not be subject to U.S. withholding tax with respect to payments on your Notes or to generally applicable information reporting and backup withholding requirements with respect to payments on your Notes if you comply with certain certification and identification requirements as to your non-U.S. status (by providing us (and/or the applicable withholding agent) with a fully completed and duly executed applicable IRS Form W-8). Subject to Section 897 of the Code and Section 871(m) of the Code, discussed below, gain from the taxable disposition of a Note generally should not be subject to U.S. tax unless (i) such gain is effectively connected with a trade or business conducted by the non-U.S. holder in the U.S., (ii) the non-U.S. holder is a non-resident alien individual and is present in the U.S. for 183 days or more during the taxable year of such taxable disposition and certain other conditions are satisfied or (iii) the non-U.S. holder has certain other present or former connections with the U.S.

Section 897. We will not attempt to ascertain whether any underlying constituent issuer would be treated as a “United States real property holding corporation” (“USRPHC”) within the meaning of Section 897 of the Code. We also have not attempted to determine whether the Notes should be treated as “United States real property interests” (“USRPI”) as defined in Section 897 of the Code. If any such entity and the Notes were so treated, certain adverse U.S. federal income tax consequences could possibly apply, including subjecting any gain to a non-U.S. holder in respect of a Note upon a taxable disposition of a Note to U.S. federal income tax on a net basis, and the proceeds from such a taxable disposition could be subject to a 15% withholding tax. Non-U.S. holders should consult their tax advisors regarding the potential treatment of any underlying constituent issuer for their Notes as a USRPHC and the Notes as USRPI.

Section 871(m). A 30% withholding tax (which may be reduced by an applicable income tax treaty) is imposed under Section 871(m) of the Code on certain “dividend equivalents” paid or deemed paid to a non-U.S. holder with respect to a “specified equity-linked instrument” that references one or more dividend-paying U.S. equity securities or indices containing U.S. equity securities. The withholding tax can apply even if the instrument does not provide for payments that reference dividends. Treasury regulations provide that the withholding tax applies to all dividend equivalents paid or deemed paid on specified equity-linked instruments that have a delta of one (“delta-one specified equity-linked instruments”) issued after 2016 and to all dividend equivalents paid or deemed paid on all other specified equity-linked instruments issued after 2018. However, the IRS has issued guidance that states that the Treasury and the IRS intend to amend the effective dates of the Treasury regulations to provide that withholding on dividend equivalents paid or deemed paid will not apply to specified equity-linked instruments that are not delta-one specified equity-linked instruments and are issued before January 1, 2021.

Based on our determination that the Notes are not “delta-one” with respect to any underlying asset or any U.S. underlying constituents, our counsel is of the opinion that the Notes should not be delta-one specified equity-linked instruments and thus should not be subject to withholding on dividend equivalents. Our determination is not binding on the IRS, and the IRS may disagree with this determination. Furthermore, the application of Section 871(m) of the Code will depend on our determinations made upon issuance of the Notes. If withholding is required, we will not make payments of any additional amounts.

Nevertheless, after issuance, it is possible that your Notes could be deemed to be reissued for tax purposes upon the occurrence of certain events affecting an underlying asset, the underlying constituents or your Notes, and following such occurrence your Notes could be treated as delta-one specified equity-linked instruments that are subject to withholding on dividend equivalents. It is also possible that withholding tax or other tax under Section 871(m) of the Code could apply to the Notes under these rules if a non-U.S. holder enters, or has entered, into certain other transactions in respect of an underlying asset, the underlying constituents or the Notes. A non-U.S. holder that enters, or has entered, into other transactions in respect of an underlying asset, the underlying constituents or the Notes should consult its tax advisor regarding the application of Section 871(m) of the Code to its Notes in the context of its other transactions.

Because of the uncertainty regarding the application of the 30% withholding tax on dividend equivalents to the Notes, you are urged to consult your tax advisor regarding the potential application of Section 871(m) of the Code and the 30% withholding tax to an investment in the Notes.

Foreign Account Tax Compliance Act. The Foreign Account Tax Compliance Act (“FATCA”) was enacted on March 18, 2010, and imposes a 30% U.S. withholding tax on “withholdable payments” (i.e., certain U.S.-source payments, including interest (and original issue discount), dividends, other fixed or determinable annual or periodical gain, profits, and income, and on the gross proceeds from a disposition of property of a type which can produce U.S.-source interest or dividends) and “passthru payments” (i.e., certain payments attributable to withholdable payments) made to certain foreign financial institutions (and certain of their affiliates) unless the payee foreign financial institution agrees (or is required), among other things, to disclose the identity of any U.S. individual with an account of the institution (or the relevant affiliate) and to annually report certain information about such account. FATCA also requires

withholding agents making withholdable payments to certain foreign entities that do not disclose the name, address, and taxpayer identification number of any substantial U.S. owners (or do not certify that they do not have any substantial U.S. owners) to withhold tax at a rate of 30%. Under certain circumstances, a holder may be eligible for refunds or credits of such taxes.

Pursuant to final and temporary Treasury regulations and other IRS guidance, the withholding and reporting requirements under FATCA will generally apply to certain “withholdable payments”, will not apply to gross proceeds on a sale or disposition, and will apply to certain foreign passthru payments only to the extent that such payments are made after the date that is two years after final regulations defining the term “foreign passthru payment” are published. If withholding is required, we (or the applicable paying agent) will not be required to pay additional amounts with respect to the amounts so withheld. Foreign financial institutions and non-financial foreign entities located in jurisdictions that have an intergovernmental agreement with the U.S. governing FATCA may be subject to different rules.

Investors should consult their tax advisors about the application of FATCA, in particular if they may be classified as financial institutions (or if they hold their Notes through a foreign entity) under the FATCA rules.

Proposed Legislation. In 2007, legislation was introduced in Congress that, if it had been enacted, would have required holders of Notes purchased after the bill was enacted to accrue interest income over the term of the Notes despite the fact that there will be no interest payments over the term of the Notes.

Furthermore, in 2013, the House Ways and Means Committee released in draft form certain proposed legislation relating to financial instruments. If it had been enacted, the effect of this legislation generally would have been to require instruments such as the Notes to be marked to market on an annual basis with all gains and losses to be treated as ordinary, subject to certain exceptions.

It is not possible to predict whether any similar or identical bills will be enacted in the future, or whether any such bill would affect the tax treatment of your Notes. You are urged to consult your tax advisor regarding the possible changes in law and their possible impact on the tax treatment of your Notes.

Both U.S. and non-U.S. holders are urged to consult their tax advisors concerning the application of U.S. federal income tax laws to their particular situations, as well as any tax consequences of the purchase, beneficial ownership and disposition of the Notes arising under the laws of any state, local, non-U.S. or other taxing jurisdiction (including those of the jurisdictions of the underlying constituent issuers).

Supplemental Plan of Distribution (Conflicts of Interest); Secondary Markets (if any)

We have agreed to sell to UBS Securities LLC and UBS Securities LLC has agreed to purchase, all of the Notes at the issue price to the public less the underwriting discount indicated on the cover hereof. UBS Securities LLC has agreed to resell all of the Notes to UBS Financial Services Inc. at a discount from the issue price to the public equal to the underwriting discount indicated on the cover hereof.

Conflicts of Interest — Each of UBS Securities LLC and UBS Financial Services Inc. is an affiliate of UBS and, as such, has a “conflict of interest” in this offering within the meaning of Financial Industry Regulatory Authority, Inc. (“FINRA”) Rule 5121. In addition, UBS will receive the net proceeds (excluding the underwriting discount) from the initial public offering of the Notes, thus creating an additional conflict of interest within the meaning of FINRA Rule 5121. Consequently, the offering is being conducted in compliance with the provisions of FINRA Rule 5121. Neither UBS Securities LLC nor UBS Financial Services Inc. is permitted to sell Notes in this offering to an account over which it exercises discretionary authority without the prior specific written approval of the account holder.

UBS Securities LLC and its affiliates may offer to buy or sell the Notes in the secondary market (if any) at prices greater than UBS’ internal valuation — The value of the Notes at any time will vary based on many factors that cannot be predicted. However, the price (not including UBS Securities LLC’s or any affiliate’s customary bid-ask spreads) at which UBS Securities LLC or any affiliate would offer to buy or sell the Notes immediately after the trade date in the secondary market is expected to exceed the estimated initial value of the Notes as determined by reference to our internal pricing models. The amount of the excess will decline to zero on a straight line basis over a period ending no later than 9 months after the trade date, provided that UBS Securities LLC may shorten the period based on various factors, including the magnitude of purchases and other negotiated provisions with selling agents. Notwithstanding the foregoing, UBS Securities LLC and its affiliates intend, but are not required to make a market for the Notes and may stop making a market at any time. For more information about secondary market offers and the estimated initial value of the Notes, see “Key Risks — Fair value considerations” and “ — Limited or no secondary market and secondary market price considerations” herein.

Prohibition of Sales to EEA Retail Investors — The Notes are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the European Economic Area (“EEA”). For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client as defined in point (11) of Article 4(1) of Directive 2014/65/EU, as amended (“MiFID II”); (ii) a customer within the meaning of Directive 2002/92/EC, as amended, where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or (iii) not a qualified investor as defined in Directive 2003/71/EC, as amended. Consequently no key information document required by Regulation (EU) No 1286/2014, as amended (the “PRIIPs Regulation”), for offering or selling the Notes or otherwise making them available to retail investors in the EEA has been prepared and therefore offering or selling the Notes or otherwise making them available to any retail investor in the EEA may be unlawful under the PRIIPs Regulation.

Validity of the Notes

In the opinion of Cadwalader, Wickersham & Taft LLP, as special counsel to the issuer, when the Notes offered by this pricing supplement have been executed and issued by the issuer and authenticated by the trustee pursuant to the indenture and delivered, paid for and sold as contemplated herein, the Notes will be valid and binding obligations of the issuer, enforceable against the issuer in accordance with their terms, subject to applicable bankruptcy, insolvency, fraudulent conveyance, reorganization, moratorium, receivership or other laws relating to or affecting creditors' rights generally, and to general principles of equity (regardless of whether enforcement is sought in a proceeding at law or in equity). This opinion is given as of the date hereof and is limited to the laws of the State of New York. Insofar as this opinion involves matters governed by Swiss law, Cadwalader, Wickersham & Taft LLP has assumed, without independent inquiry or investigation, the validity of the matters opined on by Homburger AG, Swiss legal counsel for the issuer, in its opinion dated October 29, 2018 filed on that date with the Securities and Exchange Commission as Exhibit 5.3 to the issuer's registration statement on Form F-3 (the "Registration Statement"). In addition, this opinion is subject to customary assumptions about the trustee's authorization, execution and delivery of the indenture and, with respect to the Notes, authentication of the Notes and the genuineness of signatures and certain factual matters, all as stated in the opinion of Cadwalader, Wickersham & Taft LLP dated October 29, 2018 filed on that date with the Securities and Exchange Commission as Exhibit 5.4 to the Registration Statement.