UBS AG
Form 424B2
November 20, 2018
The information in this Preliminary Terms Supplement is not complete and may be changed. We may not sell these Notes until the Final Terms Supplement, the Prospectus Supplement, the accompanying Product Supplement and the Prospectus (collectively, the "Offering Documents") are delivered in final form. The Offering Documents are not an offer to sell these Notes, and we are not soliciting offers to buy these Notes, in any state where the offer or sale is not permitted.

Subject to Completion
Dated November 20, 2018

PRELIMINARY TERMS SUPPLEMENT

Filed Pursuant to Rule 424(b)(2)

Registration Statement No. 333-225551

Preliminary Terms Supplement

UBS AG Airbag Yield Optimization Notes

UBS AG $ Notes linked to the common stock of NVIDIA Corporation due May 28, 2019

Indicative Terms

Issuer	UBS AG, London Branch
Issue Price per Note	Equal to 100% of the principal amount per Note.
Principal Amount per Note	$1,000
Term	Approximately 6 months.
Underlying Asset	The common stock of NVIDIA Corporation
Coupon Payments	UBS AG will pay interest on the principal amount of the Notes on the coupon payment dates; provided that, if any coupon payment date would otherwise fall on a date which is not a business day, the relevant coupon payment date will be the first following day which is a business day unless that day falls in the next calendar month, in which case the relevant coupon payment date will be the first preceding day which is a business day. Each payment of interest due on a coupon payment date or on the maturity date, as the case may be, will include interest accrued from the last unadjusted coupon payment date on which interest has been paid or made available for payment (or the settlement date date in the case of the first coupon payment date) to the relevant unadjusted coupon payment date. UBS will compute interest on the Notes on the basis of a 360-day year of twelve 30-day months. If the maturity date is postponed beyond the originally scheduled maturity date because that day is not a trading day or due to the occurrence of a market disruption event

on the final valuation date, interest will cease to accrue on the originally scheduled maturity date. The table below assumes a coupon rate of 11.8% per annum. The actual coupon rate will be set at the time the trade is placed on the trade date. Amounts in the table below may have been rounded for ease of analysis.

Coupon Payment Date*	Coupon Payment (per Note)
December 24, 2018	0.9833%
January 23, 2019	0.9833%
February 25, 2019	0.9833%
March 25, 2019	0.9833%
April 23, 2019	0.9833%
May 28, 2019	1.1472%

*The record date for coupon payment will be one business day preceding the coupon payment date.

Coupon Rate	The Notes will bear interest at a rate of 11.80% - 12.34% per annum. The actual coupon rate will be set at the time the trade is placed on the trade date.
Total Coupon Payable	6.06% - 6.34%
Payment at Maturity (per Note)	If the final price of the underlying asset is equal to or greater than the conversion price, we will pay you an amount in cash at maturity equal to your principal amount. If the final price of the underlying asset is below the conversion price, we will pay you for each Note you own an amount in cash at maturity equal to the product of (i) the final price of the underlying asset, multiplied by (ii) the share factor, subject to adjustments in the case of certain corporate events, as described in the accompanying product supplement. **In this scenario, the cash payment you receive will be less than your principal amount and may be zero.**
Closing Price	On any trading day, the last reported sale price (or, in the case of NASDAQ, the official closing price) of the underlying asset during the principal trading session on the principal national securities exchange on which it is listed for trading, as determined by the calculation agent.
Initial Price	The closing price of the underlying asset on the trade date, as determined by the calculation agent and as may be adjusted in the case of certain corporate events, as described in the accompanying product supplement.
Conversion Price	77.00% of the initial price of the underlying asset, as determined by the calculation agent and as may be adjusted in the case of certain corporate events as described in the accompanying product supplement, provided that references to "trigger level" therein shall mean the conversion price.

Final Price	The closing price of the underlying asset on the final valuation date, as determined by the calculation agent and subject to adjustments in the case of certain corporate events, as described in the accompanying product supplement.
Share Factor	The share factor is initially set equal to (i) the principal amount divided by (ii) the conversion price of the underlying asset. The share factor will be subject to adjustments in the case of certain corporate events as described in the accompanying product supplement under "General Terms of the Securities -- Antidilution Adjustments for Securities Linked to an Underlying Equity or Equity Basket Asset" and " -- Reorganization Events for Securities Linked to an Underlying Equity or Equity Basket Asset" in the accompanying" , provided that references to "share delivery amount" therein shall mean the share factor.
Trade Date	November 20, 2018
Settlement Date	November 23, 2018
Final Valuation Date	May 22, 2019. The final valuation date may be subject to postponement in the event of a market disruption event, as described in the accompanying product supplement.
Maturity Date	May 28, 2019. The maturity date may be subject to postponement in the event of a market disruption event, as described in the accompanying product supplement.
CUSIP	[ ]
ISIN	[ ]
Valoren	[ ]

The estimated initial value based on an issuance size of approximately $100,000 of the Notes as of the trade date is expected to be between 95.10% and 97.60% of the issue price to the public for Notes linked to the underlying asset. The range of the estimated initial value of the Notes was determined on the date of this preliminary terms supplement 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 "Key Risks - Limited or no secondary market and secondary market price considerations" on pages 4 and 5 of this preliminary terms supplement.

Notice to investors: the Notes are significantly riskier than conventional debt instruments. The issuer is not necessarily obligated to repay the full principal amount of the Notes at maturity, and the Notes can have the full downside market risk of the 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" in this preliminary terms supplement, under "Key Risks" beginning on page 6 of the prospectus supplement and under "Risk Factors" beginning on page PS-9 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 some 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.

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 preliminary terms supplement, the previously delivered prospectus 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.

See "Additional Information about UBS and the Notes" on page 3. The Notes we are offering will have the terms set forth in the Prospectus Supplement dated November 1, 2018 relating to the Notes, the accompanying product supplement, the accompanying prospectus and this preliminary terms supplement.

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 common stock of NVIDIA Corporation	$	100%	$	1.00%	$	99.00%

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 a product supplement and a prospectus supplement for the Notes) with the Securities and Exchange Commission, or SEC, for the offering for which this preliminary terms supplement relates. Before you invest, you should read these documents and any other documents relating to the Notes that UBS has filed with the SEC for more complete information about UBS and this offering. 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 web site at www.sec.gov as follows:

- Prospectus Supplement dated November 1, 2018: http://www.sec.gov/Archives/edgar/data/1114446/000091412118002125/ub46175205-424b2.htm
- Market Linked Securities product supplement dated October 31, 2018: http://www.sec.gov/Archives/edgar/data/1114446/000091412118002085/ub47016353-424b2.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, "Airbag Yield Optimization Notes" or the "Notes" refer to the Notes that are offered hereby. Also, references to "prospectus supplement" mean the UBS prospectus supplement dated November 1, 2018, references to "Market-Linked Securities product supplement" mean the UBS product supplement, dated October 31, 2018, relating to the Notes generally and references to the "accompanying prospectus" mean the UBS prospectus titled, "Debt Securities and Warrants", dated October 31, 2018.

This preliminary terms supplement, 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 preliminary or indicative 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 in 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.

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.

Key Risks

An investment in the Notes involves significant risks. Some of the risks that apply to the Notes are summarized here and are comparable to the corresponding risks discussed in the "Key Risks" section of the prospectus supplement, but we urge you to read the more detailed explanation of risks relating to the Notes generally 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 pay the full principal amount of the Notes at maturity. UBS will only pay you the principal amount of your Notes in cash if the final price of the underlying asset is equal to or greater than the conversion price and only at maturity. If the final price of the underlying asset is below the conversion price, UBS will pay you for each Note you own an amount in cash at maturity equal to the product of (i) the final price of the underlying asset, multiplied by (ii) the share factor (subject to adjustments as described in the accompanying product supplement). As a result, if the final price is below the conversion price, you will be exposed at an increased rate to any such decline below the conversion price. For example, if the conversion price is 80% of the initial price, the final price is less than the conversion price and is equal to 70% of the initial price, you will lose 12.50% of your principal amount at maturity, which is greater than the 10% additional decline from the conversion price. The cash payment you receive will be less than your principal amount and may be zero.
- **Higher coupon rates are generally associated with a greater risk of loss -** Greater expected volatility with respect to the Note’s underlying asset reflects a higher expectation as of the trade date that the price of the underlying asset could close below its conversion price on the final valuation date of the Note. This greater expected risk will generally be reflected in a higher coupon payable on that Note. However, the underlying asset’s volatility can change significantly over the term of the Notes and the price of the underlying asset for your Note

could fall sharply, which could result in a significant loss of principal.

- **The contingent repayment of your 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 maturity in the secondary market, you may have to sell them at a loss relative to your initial investment even if the then-current underlying asset price is equal to or greater than the conversion price at that time.
- **Your potential return on the Notes is limited to the coupons paid on the Notes -** You will not participate in any appreciation of the underlying asset and your return on the Notes will be limited to the coupon payments. If the closing price of the underlying asset on the final valuation date is greater than or equal to the conversion price, UBS will pay you the principal amount of your Notes in cash at maturity and you will not participate in any appreciation in the price of the underlying asset even though you risked being subject to the decline in the price of the underlying asset. If the closing price of the underlying asset on the final valuation date is less than the conversion price, UBS will pay you for each Note you own an amount in cash at maturity equal to the product of (i) the final price of the underlying asset, multiplied by (ii) the share factor (subject to adjustments as described in the accompanying product supplement), which will be less than your principal amount and may be zero. Any payment at maturity will be unaffected by any appreciation or decline in the price of the underlying asset after the final valuation date. Therefore, your return potential on the Notes is limited to the coupons paid on the Notes and may be less than your return would be on a direct investment in the underlying asset.
- **Greater expected volatility generally indicates an increased risk of loss at maturity -** ”Volatility” refers to the frequency and magnitude of changes in the price of the underlying asset. The greater the expected volatility of the underlying asset as of the trade date, the greater the expectation is as of the trade date that the final price of the underlying asset could be less than the conversion price and, as a consequence, indicates an increased risk of loss. However, the underlying asset’s volatility can change significantly over the term of the Notes, and a relatively lower conversion price may not necessarily indicate that the Notes have a greater likelihood of a return of principal at maturity. You should be willing to accept the downside market risk of the underlying asset and the potential to lose some or all of your initial investment.
- **Credit risk of UBS -** The Notes are unsubordinated, unsecured debt obligations of the issuer, 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, the actual and perceived creditworthiness of UBS may affect the market value of the Notes and, in the event 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 your entire investment.
- **Market risk** - The price of the underlying asset can rise or fall sharply due to factors specific to that underlying asset and (i) in the case of common stock or American depositary receipts, its issuer (the "underlying asset issuer") or (ii) in the case of an exchange traded fund, the securities, futures contracts or physical commodities constituting the assets of that underlying asset. These factors include price volatility, earnings, financial conditions, corporate, industry and regulatory developments, management changes and decisions and other events, as well as general market factors, such as general market volatility and levels, interest rates and economic and political conditions. You, as an investor in the

Notes, should make your own investigation into the underlying asset issuer and the underlying asset for your Notes. **We urge you to review financial and other information filed periodically by the underlying asset issuer with the SEC.**

- **Fair value considerations.**

- **The issue price you pay for the Notes will exceed 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 will determine the estimated initial value of the Notes by reference to our internal pricing models and it will be set forth in the final terms supplement. The pricing models used to determine the estimated initial value of the Notes incorporate certain variables, including the price, volatility and expected dividends on the underlying asset, 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 will be 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 pricing the Notes on 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. There can be no assurance that a secondary market for the Notes will develop. UBS Securities LLC and its affiliates may make a market in each offering of the Notes, although they are not required to do so 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. 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 for 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 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.
- **Price of Notes prior to maturity** - The market price of the Notes will be influenced by many unpredictable and interrelated factors, including the price of the underlying asset; the volatility of the underlying asset; the dividend rate paid on the underlying asset; 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; the creditworthiness of UBS and the then current bid-ask spread for the Notes.
- **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.
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- **Owning the Notes is not the same as owning the underlying asset -** The return on your Notes may not reflect the return you would realize if you actually owned the underlying asset. For instance, you will not receive or be entitled to receive any dividend payments or other distributions on the underlying asset, and you will not participate in any appreciation of the underlying asset, over the term of the Notes.
- **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 price of the underlying asset will rise or fall. There can be no assurance that the underlying asset price will not rise by more than the coupons paid on the Notes or will not close below the conversion price on the final valuation date. The price of the underlying asset will be influenced by complex and interrelated political, economic, financial and other factors that affect the underlying asset issuer or, for Notes linked to exchange traded funds, the underlying asset constituent stock issuers. You should be willing to accept the risks of owning equities in general and the underlying asset in particular, and the risk of losing some or all of your initial investment.
- **The calculation agent can make adjustments that affect the payment to you at maturity** - The calculation agent may adjust the amount payable at maturity by adjusting the conversion price, the share factor and/or the final price for certain corporate events affecting the underlying asset, such as stock splits and stock dividends, and certain other actions involving the underlying asset. However, the calculation agent is not required to make an adjustment for every corporate event that can affect the underlying asset. If an event occurs that does not require the calculation agent to adjust the conversion price and the share factor, the market value of your Notes and the payment at maturity may be materially and adversely affected. In the case of common stock or American depositary receipts, following certain corporate events relating to the issuer of the underlying asset where the issuer is not the surviving entity, the amount of cash you receive at maturity may be based on the common stock or American depositary receipts of a successor to the underlying asset issuer in combination with any cash or any other assets distributed to holders of the underlying asset in such corporate event. Additionally, if the issuer of the underlying asset becomes subject to (i) a reorganization event whereby the underlying asset is exchanged solely for cash, (ii) a merger or consolidation with UBS or any of its affiliates or (iii) an underlying equity is delisted or otherwise suspended from trading, the amount you receive at maturity may be based on the common stock or American depositary receipts issued by another company. In the case of an exchange traded fund, following a suspension from trading or if an exchange traded fund is discontinued, the amount you receive at maturity may be based on a share of another exchange traded fund. The occurrence of these corporate events and the consequent adjustments may materially and adversely affect the value of the Notes. For more information, see the sections "General Terms of the Securities -- Antidilution Adjustments for Securities Linked to an Underlying Equity or Equity Basket Asset" and " -- Reorganization Events for Securities Linked to an Underlying Equity or Equity Basket Asset" in the accompanying product supplement. Regardless of the occurrence of one or more dilution or reorganization events, you should note that at maturity UBS will pay you an amount in cash equal to your principal amount, unless the final price of the underlying asset is below the conversion price (as such conversion price may be adjusted by the calculation agent upon the occurrence of one or more such events). Regardless of any of the events discussed above, any payment on the Notes is subject to the creditworthiness of UBS.
- **There is no affiliation between the underlying asset issuer, or for Notes linked to exchange traded funds, the issuers of the constituent stocks comprising the underlying asset (the "underlying asset constituent stock issuers"), and UBS is not responsible for any disclosure by such issuer(s) -** We and our affiliates may currently, or from time to time in the future engage in business with the underlying asset issuer or, if applicable, any underlying asset constituent stock issuers. However, we are not affiliated with the underlying asset issuer or any underlying asset constituent stock issuers and are not responsible for such issuer's public disclosure of information, whether contained in SEC filings or otherwise. You, as an investor in the Notes, should make your own investigation into the underlying asset issuer or, if applicable, each underlying asset constituent stock issuer. Neither the underlying asset issuer nor any underlying asset constituent stock issuer is involved in the Notes offered hereby in any way and has no obligation of any sort with respect to your Notes. Such issuer(s) have no obligation to take your interests into consideration for any reason, including when taking any corporate actions that might affect the value of, and any amounts payable on, your Notes.
- **Potential UBS impact on the market price of the underlying asset -** Trading or transactions by UBS or its affiliates in the underlying asset and/or over-the-counter options, futures or other instruments with returns linked to

the performance of the underlying asset may adversely affect the market price of the underlying asset and, therefore, the market value of, and any amounts payable on, your Notes.

- **Potential conflict of interest -** UBS and its affiliates may engage in business with the issuer of the underlying asset or, for Notes linked to exchange traded funds, the underlying asset constituent stock issuers, which may present a conflict between the obligations of UBS and you, as a holder of the Notes. The calculation agent, an affiliate of UBS, will determine whether the final price is below the conversion price and accordingly the payment at maturity on your Notes. The calculation agent may also postpone the determination of the final price and the maturity date if a market disruption event occurs and is continuing on the final valuation date and may make adjustments to the share factor, conversion price, the final price and/or the underlying asset itself for certain corporate events affecting the underlying asset. For more information, see the sections "General Terms of the Securities -- Antidilution Adjustments for Securities Linked to an Underlying Equity or Equity Basket Asset" and " -- Reorganization Events for Securities Linked to an Underlying Equity or Equity Basket Asset" in the accompanying product supplement. As UBS determines the economic terms of the Notes, including the coupon rate and conversion price, 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 may publish research or express opinions or provide recommendations that are inconsistent with purchasing or holding the Notes, and which may be revised without notice. Any research, opinions or recommendations expressed by UBS or its affiliates may not be consistent with each other and may influence the value of the Notes.
- **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's 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's 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's 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.

- **Dealer incentives -** UBS and its 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 which may serve as an incentive to sell these Notes instead of other investments. We will pay total underwriting compensation of 1.0% 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.
- **Uncertain tax treatment -** Significant aspects of the tax treatment of the Notes are uncertain. You should read carefully the sections entitled "What are the Tax Consequences of the Notes?" herein and in the prospectus supplement and “Material U.S. Federal Income Tax Consequences" in the accompanying product supplement, and consult your tax advisor about your tax situation.

Information about the Underlying Asset

All disclosures regarding the underlying asset 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.**

The underlying asset will be registered under the Securities Act of 1933, the Securities Exchange Act of 1934 (as amended, the "Exchange Act") and/or the Investment Company Act of 1940, each as amended. Companies with securities registered with the SEC are required to file financial and other information specified by the SEC periodically. Information filed by the underlying asset issuer with the SEC can be reviewed electronically through a website maintained by the SEC. The address of the SEC's website is http://www.sec.gov. Information filed with the SEC by the underlying asset issuer can be located by reference to its SEC file number provided below. In addition, information filed with the SEC can be inspected and copied at the Public Reference Section of the SEC, 100 F Street, N.E., Room 1580, Washington, D.C. 20549. Copies of this material can also be obtained from the Public Reference Section, at prescribed rates.

NVIDIA Corporation

According to publicly available information, NVIDIA Corporation ("NVIDIA") is engaged in visual computing. NVIDIA-branded products and services are visual computing platforms that address four markets: Gaming, Professional Visualization, Datacenter and Automotive. NVIDIA operates in two segments: Graphics Processing Unit ("GPU") and Tegra Processor. NVIDA integrates its GPUs into system-on-a-chip processors, which are used in tablets, online gaming and entertainment devices, autonomous robots, drones and cars, and analysts focused on aritificial intelligence, learning and big-data analysts and GRID for cloud-based visual computing users. The Tegra Processor processors integrate an entire computer onto a single chip and are primarily designed to enable its branded platforms: DRIVE and SHIELD. DRIVE automotive computers provide supercomputing capabilities to make driving safer and enable self-driving capabilities. SHIELD consists of a family of devices designed to harness the power of mobile-cloud to revolutionize gaming. Tegra is also sold to OEMs for devices. Information filed by NVIDIA with the SEC can be located by reference to its SEC file number: 000-23985, or its CIK Code: 0001045810. NVIDIA's website is nvidia.com. NVIDIA's common stock is listed on the NASDAQ Global Select Market under the ticker symbol "NVDA."

Information from outside sources is not incorporated by reference in, and should not be considered part of, this preliminary terms supplement or any accompanying prospectus. UBS has not conducted any independent review or due diligence of any publicly available information with respect to the underlying asset.

Historical Information

The following table sets forth the quarterly high and low closing prices for NVIDIA's common stock, based on daily closing prices on the primary exchange for NVIDIA. We obtained the closing price information set forth below from the Bloomberg Professional service ("Bloomberg") without independent verification. The closing prices may be adjusted by Bloomberg for corporate actions such as stock splits, public offerings, mergers and acquisitions, spin-offs, extraordinary dividends, delistings and bankruptcy. UBS has not undertaken an independent review or due diligence of any publicly available information obtained from Bloomberg. NVIDIA's closing price on November 19, 2018 was $144.70. The actual initial price will be the closing price of NVIDIA's common stock on the trade date. **Past performance of the underlying asset is not indicative of the future performance of the underlying asset.**

Quarter Begin	Quarter End	Quarterly High	Quarterly Low	Quarterly Close
01/02/2014	03/31/2014	$18.88	$15.36	$17.91
04/01/2014	06/30/2014	$19.61	$17.98	$18.54
07/01/2014	09/30/2014	$20.03	$17.46	$18.45
10/01/2014	12/31/2014	$21.14	$16.78	$20.05
01/02/2015	03/31/2015	$23.47	$19.14	$20.92
04/01/2015	06/30/2015	$22.76	$20.11	$20.11

07/01/2015	09/30/2015	$24.65	$19.31	$24.65
10/01/2015	12/31/2015	$33.75	$24.17	$32.96
01/04/2016	03/31/2016	$35.76	$25.22	$35.63
04/01/2016	06/30/2016	$48.49	$34.76	$47.01
07/01/2016	09/30/2016	$68.52	$46.66	$68.52
10/03/2016	12/30/2016	$117.32	$65.35	$106.74
01/03/2017	03/31/2017	$119.13	$97.67	$108.93
04/03/2017	06/30/2017	$159.94	$95.49	$144.56
07/03/2017	09/29/2017	$187.55	$139.33	$178.77
10/02/2017	12/29/2017	$216.96	$179.00	$193.50
01/02/2018	03/29/2018	$250.48	• the market prices and dividend rates of the stocks composing the Index and changes that affect those stocks and their issuers;	

• the time remaining to the maturity of the Securities;

• interest rates and yields in the market generally;

• geopolitical conditions and a variety of economic, financial, political, regulatory or judicial events that affect the Index or markets generally;

• supply and demand for the Securities; and

• our creditworthiness, including actual or anticipated downgrades in our credit ratings.

♦ Potential Deutsche Bank AG Impact on Price — Trading or transactions by Deutsche Bank AG or its affiliates in the stocks composing the Index and/or in futures, over-the-counter options, exchange-traded funds or other instruments with returns linked to the performance of the Index or the stocks composing the Index, may adversely affect the price of the stocks composing the Index, the level of the Index, and therefore the value of the Securities.

♦

Trading and Other Transactions by Us, UBS AG or Our or Its Affiliates in the Equity and Equity Derivative Markets May Impair the Value of the Securities — We or our affiliates expect to hedge our exposure from the Securities by entering into equity and equity derivative transactions, such as over-the-counter options, futures or exchange-traded instruments. We, UBS AG or our or its affiliates may also engage in trading in instruments linked or related to the Index on a regular basis as part of our or its general broker-dealer and other businesses, for proprietary accounts, for other accounts under management or to facilitate transactions for customers, including block transactions. Such trading and hedging activities may affect the Index and make it less likely that you will receive a positive return on your investment in the Securities. It is possible that we, UBS AG or our or its affiliates could receive substantial returns from these hedging and trading activities while the value of the Securities declines. We, UBS AG or our or its affiliates may also issue or underwrite other securities or financial or derivative instruments with returns linked or related to the Index. Introducing competing products into the marketplace in this manner could adversely affect the value of the Securities. Any of the foregoing activities described in this paragraph may reflect trading strategies that differ from, or are in direct opposition to, investors' trading and investment strategies related to the Securities.

♦ We, UBS AG or Our or Its Affiliates May Publish Research, Express Opinions or Provide Recommendations That Are Inconsistent with Investing in or Holding the Securities. Any Such Research, Opinions or Recommendations Could Adversely Affect the Level of the Index and the Value of the Securities — We, UBS AG or our or its affiliates may publish research from time to time on financial markets and other matters that could adversely affect the value of the Securities, or express opinions or provide recommendations that are inconsistent with purchasing or holding the Securities. Any research, opinions or recommendations expressed by us, UBS AG or our or its affiliates may not be consistent with each other and may be modified from time to time without notice. You should make your own independent investigation of the merits of investing in the Securities and the Index.

♦ Potential Conflicts of Interest — Deutsche Bank AG or its affiliates may engage in business with the issuers of the stocks composing the Index, which may present a conflict between Deutsche Bank AG and you, as a holder of the Securities. We and our affiliates play a variety of roles in connection with the issuance of the Securities, including acting as calculation agent, hedging our obligations under the Securities and determining the Issuer's estimated value of the Securities on the Trade Date and the price, if any, at which we or our affiliates would be willing to purchase the Securities from you in secondary market transactions. In performing these roles, our economic interests and those of our affiliates are potentially adverse to your interests as an investor in the Securities. The calculation agent will determine, among other things, all values, prices and levels required to be determined for the purposes of the Securities on any relevant date or time. The calculation agent will also be responsible for determining whether a market disruption event has occurred. Any determination by the calculation agent could adversely affect the return on the Securities.

♦ The U.S. Federal Income Tax Consequences of an Investment in the Securities Are Uncertain — There is no direct legal authority regarding the proper U.S. federal income tax treatment of the Securities, and we do not plan to request a ruling from the Internal Revenue Service (the "IRS"). Consequently, significant aspects of the tax treatment of the Securities are uncertain, and the IRS or a court might not agree with the treatment of the Securities as prepaid financial contracts that are not debt. If the IRS were successful in asserting an alternative treatment for the Securities, the tax consequences of ownership and disposition of the Securities could be materially and adversely affected. In addition, as described below under "What Are the Tax Consequences of an Investment in the Securities?", in 2007 the U.S. Treasury Department and the IRS released a notice requesting comments on various issues regarding the U.S. federal income tax treatment of "prepaid forward contracts" and similar instruments. Any Treasury regulations or other guidance promulgated after consideration of these issues could materially and adversely affect the tax consequences of an investment in the Securities, possibly with retroactive effect. You should review carefully the section of the accompanying product supplement entitled "U.S. Federal Income Tax Consequences," and consult your tax adviser regarding the U.S. federal tax consequences of an investment in the Securities (including possible alternative treatments and the issues presented by the 2007 notice), as well as tax consequences arising under the laws of any state, local or non-U.S. taxing jurisdiction.

7

Scenario Analysis and Examples at Maturity

The following table and hypothetical examples below illustrate the Payment at Maturity per $10.00 Face Amount of Securities for a hypothetical range of performances for an Index from -100.00% to +100.00%, reflect the Multiplier of 3.00 and assume an Initial Index Level of 2,000.00 and a Maximum Gain of 10.00%. The actual Initial Index Level and Maximum Gain for each Security is set forth in the "Final Terms" and on the cover of this pricing supplement. The hypothetical Payment at Maturity examples set forth below are for illustrative purposes only and may not be the actual returns applicable to a purchaser of the Securities. The actual Payment at Maturity will be determined based on the Final Index Level on the Final Valuation Date. You should consider carefully whether the Securities are suitable to your investment goals. The numbers appearing in the table and in the examples below may have been rounded for ease of analysis.

Final Index Level	Index Return (%)	Payment at Maturity ($)	Return on Securities (%)
4,000.00	100.00%	$11.00	10.00%
3,800.00	90.00%	$11.00	10.00%
3,600.00	80.00%	$11.00	10.00%
3,400.00	70.00%	$11.00	10.00%
3,200.00	60.00%	$11.00	10.00%
3,000.00	50.00%	$11.00	10.00%
2,800.00	40.00%	$11.00	10.00%
2,600.00	30.00%	$11.00	10.00%
2,400.00	20.00%	$11.00	10.00%
2,200.00	10.00%	$11.00	10.00%
2,066.67	3.33%	$11.00	10.00%
2,050.00	2.50%	$10.75	7.50%
2,000.00	0.00%	$10.00	0.00%
1,800.00	-10.00%	$9.00	-10.00%
1,600.00	-20.00%	$8.00	-20.00%
1,400.00	-30.00%	$7.00	-30.00%
1,200.00	-40.00%	$6.00	-40.00%
1,000.00	-50.00%	$5.00	-50.00%
800.00	-60.00%	$4.00	-60.00%
600.00	-70.00%	$3.00	-70.00%
400.00	-80.00%	$2.00	-80.00%
200.00	-90.00%	$1.00	-90.00%
0.00	-100.00%	$0.00	-100.00%

Example 1 — The Final Index Level of 2,050.00 is greater than the Initial Index Level of 2,000.00, resulting in an Index Return of 2.50%. Because 3.00 times the Index Return of 2.50% is less than the Maximum Gain of 10.00%, Deutsche Bank AG will pay you 3.00 times the Index Return for a Payment at Maturity of $10.75 per $10.00 Face Amount of Securities, calculated as follows:

$10.00 + ($10.00 x the lesser of (i) Index Return x Multiplier and (ii) Maximum Gain)
$10.00 + ($10.00 × (2.50% × 3.00)) = $10.00 + $0.75 = $10.75

Example 2 — The Final Index Level of 2,200.00 is greater than the Initial Index Level of 2,000.00, resulting in an Index Return of 10.00%. Because 3.00 times the Index Return of 10.00% is greater than the Maximum Gain of 10.00%, Deutsche Bank AG will pay you a Payment at Maturity of $11.00 per $10.00 Face Amount of Securities, calculated as follows:

$10.00 + ($10.00 x the lesser of (i) Index Return x Multiplier and (ii) Maximum Gain)
$10.00 + ($10.00 × 10.00%) = $10.00 + $1.00 = $11.00

Example 3 — The Final Index Level of 1,000.00 is less than the Initial Index Level of 2,000.00, resulting in an Index Return of -50.00%. Because the Index Return is negative, Deutsche Bank AG will pay you less than your initial investment, resulting in a loss that is proportionate to the percentage decline in the level of the Index, and a Payment at Maturity of $5.00 per $10.00 Face Amount of Securities, calculated as follows:

$10.00 + ($10.00 x Index Return)
$10.00 + ($10.00 × -50.00%) = $5.00

If the Final Index Level is less than the Initial Index Level on the Final Valuation Date, you will be fully exposed to any negative Index Return, and, for each $10.00 Face Amount of Securities, the Issuer will pay you less than the Face Amount, resulting in a loss on the Face Amount that is proportionate to the percentage decline in the level of the Index. In this circumstance, you will lose some or all of your initial investment at maturity. Any payment on the Securities is subject to the creditworthiness of the Issuer and if the Issuer were to default on its payment obligations or become subject to a Resolution Measure, you could lose your entire investment.

The S&P 500® Index

The S&P 500® Index is intended to provide a performance benchmark for the U.S. equity markets. The calculation of the level of the S&P 500® Index is based on the relative value of the aggregate market value of the shares of 500 companies as of a particular time as compared to the aggregate average market value of the shares of 500 similar companies during the base period of the years 1941 through 1943. On March 11, 2014, the sponsor of the S&P 500® Index announced that the sponsor will start including, on a case by case basis, multiple share class lines in the S&P 500® Index. This will result in the S&P 500® Index including more than 500 component shares while continuing to include only 500 component companies. The sponsor expects to revise the S&P 500® Index's methodology to fully reflect a multiple share class structure by September 2015. This is just a summary of the S&P 500® Index. For more information on the S&P 500® Index, including information concerning its composition, calculation methodology and adjustment policy, please see the section entitled "The S&P Dow Jones Indices – The S&P 500® Index" in the accompanying underlying supplement No. 1 dated October 1, 2012.

The graph below illustrates the performance of the S&P 500® Index from January 2, 2008 to February 24, 2015. The closing level of the S&P 500® Index on February 24, 2015 was 1,233.975. We obtained the historical closing levels of the S&P 500® Index from Bloomberg L.P., and we have not participated in the preparation of, or verified, such information. The historical closing levels of the S&P 500® Index should not be taken as an indication of future performance and no assurance can be given as to the Final Index Level or any future closing level of the S&P 500® Index. We cannot give you assurance that the performance of the S&P 500® Index will result in a positive return on your initial investment and you could lose some or all of your initial investment at maturity.

The Russell 2000® Index

The Russell 2000® Index is designed to track the performance of the small capitalization segment of the U.S. equity market. The Russell 2000® Index measures the composite price performance of stocks of approximately 2,000 companies domiciled in the U.S. and its territories and consists of the smallest 2,000 companies included in the Russell 3000® Index. The Russell 2000® Index represents approximately 10% of the total market capitalization of the Russell 3000® Index. As of June 2014, business development companies are no longer eligible for inclusion in the Russell 2000® Index. Exchange traded funds and mutual funds are also excluded. This is just a summary of the Russell 2000® Index. For more information on the Russell 2000® Index, including information concerning its composition, calculation methodology and adjustment policy, please see the section entitled “The Russell Indices – The Russell 2000® Index” in the accompanying underlying supplement No. 1 dated October 1, 2012.

The graph below illustrates the performance of the Russell 2000® Index from January 2, 2008 to February 24, 2015. The closing level of the Russell 2000® Index on February 24, 2015 was 1,233.976 We obtained historical closing levels of the Russell 2000® Index from Bloomberg L.P., and we have not participated in the preparation of, or verified, such information. The historical closing levels of the Russell 2000® Index should not be taken as an indication of future performance and no assurance can be given as to the Final Index Level or any future closing level of the Russell 2000® Index. We cannot give you assurance that the performance of the Russell 2000® Index will result in a positive return on your initial investment and you could lose some or all of your initial investment at maturity.

What Are the Tax Consequences of an Investment in the Securities?

In the opinion of our special tax counsel, Davis Polk & Wardwell LLP, which is based on prevailing market conditions, the Securities should be treated for U.S. federal income tax purposes as prepaid financial contracts that are not debt. Generally, if this treatment is respected, (i) you should not recognize taxable income or loss prior to the taxable disposition of your Securities (including at maturity) and (ii) the gain or loss on your Securities should be capital gain or loss and should be long-term capital gain or loss if you have held the Securities for more than one year. The IRS or a court might not agree with this treatment, however, in which case the timing and character of income or loss on your Securities could be materially and adversely affected.

In 2007, the U.S. Treasury Department and the IRS released a notice requesting comments on various issues regarding the U.S. federal income tax treatment of "prepaid forward contracts" and similar instruments. The notice focuses in particular on whether beneficial owners of these instruments should be required to accrue income over the term of their investment. It also asks for comments on a number of related topics, including the character of income or loss with respect to these instruments; the relevance of factors such as the nature of the underlying property to which the instruments are linked; the degree, if any, to which income (including any mandated accruals) realized by non-U.S. persons should be subject to withholding tax; and whether these instruments are or should be subject to the "constructive ownership" regime, which very generally can operate to recharacterize certain long-term capital gain as ordinary income and impose a notional interest charge. While the notice requests comments on appropriate transition rules and effective dates, any Treasury regulations or other guidance promulgated after consideration of these issues could materially and adversely affect the tax consequences of an investment in the Securities, possibly with retroactive effect.

You should review carefully the section of the accompanying product supplement entitled "U.S. Federal Income Tax Consequences." The preceding discussion, when read in combination with that section, constitutes the full opinion of our special tax counsel regarding the material U.S. federal income tax consequences of owning and disposing of the Securities.

Under current law, the United Kingdom will not impose withholding tax on payments made with respect to the Securities.

For a discussion of certain German tax considerations relating to the Securities, you should refer to the section in the accompanying prospectus supplement entitled "Taxation by Germany of Non-Resident Holders."

You should consult your tax adviser regarding the U.S. federal tax consequences of an investment in the Securities (including possible alternative treatments and the issues presented by the 2007 notice), as well as tax consequences arising under the laws of any state, local or non-U.S. taxing jurisdiction.

Supplemental Plan of Distribution (Conflicts of Interest)

UBS Financial Services Inc. and its affiliates, and Deutsche Bank Securities Inc., acting as agents for Deutsche Bank AG, will receive or allow as a concession or reallowance to other dealers discounts and commissions of $0.20 per $10.00 Face Amount of Securities. We have agreed that UBS Financial Services Inc. may sell all or part of the Securities that it purchases from us to investors at the price to public indicated on the cover of this pricing supplement, or to its affiliates at the price to public indicated on the cover of this pricing supplement minus a concession not to exceed the discounts and commissions indicated on the cover. DBSI, one of the agents for these offerings, is our affiliate. Because DBSI is both our affiliate and a member of the Financial Industry Regulatory Authority, Inc. ("FINRA"), the underwriting arrangement for these offerings must comply with the requirements of FINRA Rule 5121 regarding a FINRA member firm's distribution of the securities of an affiliate and related conflicts of interest. In accordance with FINRA Rule 5121, DBSI may not make sales in these offerings of the Securities to any of its discretionary accounts without the prior written approval of the customer. See “Underwriting (Conflicts of Interest)” in the accompanying product supplement.

Validity of the Securities

In the opinion of Davis Polk & Wardwell LLP, as special United States products counsel to the Issuer, when the Securities offered by this pricing supplement have been executed and issued by the Issuer and authenticated by the authenticating agent, acting on behalf of the trustee, pursuant to the senior indenture, and delivered against payment as contemplated herein, such Securities will be valid and binding obligations of the Issuer, enforceable in accordance with their terms, subject to applicable bankruptcy, insolvency and similar laws affecting creditors’ rights generally, concepts of reasonableness and equitable principles of general applicability (including, without limitation, concepts of good faith, fair dealing and the lack of bad faith) and possible judicial applications giving effect to governmental actions or foreign laws affecting creditors’ rights, provided that such counsel expresses no opinion as to the effect of fraudulent conveyance, fraudulent transfer or similar provision of applicable law on the conclusions expressed above. 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 German law, Davis Polk & Wardwell LLP has relied, without independent investigation, on the opinion of Group Legal Services of Deutsche Bank AG, dated as of January 1, 2015, filed as an exhibit to the letter of Davis Polk & Wardwell LLP, and this opinion is subject to the same assumptions, qualifications and limitations with respect to such matters as are contained in such opinion of Group Legal Services of Deutsche Bank AG. In addition, this opinion is subject to customary assumptions about the trustee’s authorization, execution and delivery of the senior indenture and the authentication of the Securities by the authenticating agent and the validity, binding nature and enforceability of the senior indenture with respect to the trustee, all as stated in the letter of Davis Polk & Wardwell LLP dated January 1, 2015, which has been filed by the Issuer on Form 6-K dated January 5, 2015.