

Q2 Holdings, Inc.  
Form 4  
March 10, 2017

**FORM 4**

**UNITED STATES SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549**

OMB APPROVAL

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Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

**STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES**

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person \*  
Schaper Carl James

(Last) (First) (Middle)

13785 RESEARCH BLVD., SUITE 150

(Street)

AUSTIN, TX 78750

(City) (State) (Zip)

2. Issuer Name and Ticker or Trading Symbol  
Q2 Holdings, Inc. [QTWO]

3. Date of Earliest Transaction  
(Month/Day/Year)  
03/10/2017

4. If Amendment, Date Original Filed(Month/Day/Year)

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

Director  10% Owner  
 Officer (give title below)  Other (specify below)

6. Individual or Joint/Group Filing(Check Applicable Line)  
 Form filed by One Reporting Person  
 Form filed by More than One Reporting Person

**Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned**

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)	4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)	5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Ownership (Instr. 4)
				Code V Amount (A) or (D) Price			
Common Stock	03/10/2017		S(1)	255 (2) D 34.99 (3)	855	D	

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

**Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB control number.**

SEC 1474 (9-02)

**Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)**

## Edgar Filing: Q2 Holdings, Inc. - Form 4

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)	5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)	6. Date Exercisable and Expiration Date (Month/Day/Year)	7. Title and Amount of Underlying Securities (Instr. 3 and 4)	8. Price of Derivative Security (Instr. 5)	9. Nu Deriv Secur Bene Own Follo Repo Trans (Instr
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## Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
Schaper Carl James 13785 RESEARCH BLVD. SUITE 150 AUSTIN, TX 78750	X			

## Signatures

/s/ M. Scott Kerr,  
attorney-in-fact

03/10/2017

\*\*Signature of Reporting Person

Date

## Explanation of Responses:

\* If the form is filed by more than one reporting person, see Instruction 4(b)(v).

\*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations. See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

(1) Shares sold pursuant to Reporting Person's 10b5-1 Trading Plan.

(2) Includes shares sold to cover tax withholding obligations triggered upon lapse of restricted stock units.

(3) The price reported in Column 4 is a weighted average price. These shares were sold in multiple transactions at prices ranging from \$34.75 to \$35.30 inclusive. Reporting Person undertakes to provide to Q2 Holdings, Inc., any security holder of Q2 Holdings, Inc., or the staff of the Securities and Exchange Commission, upon request, full information regarding the number of shares sold at each separate price within the range set forth in this footnote.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number. e value of the Notes.

**UBS cannot control actions by the index sponsor and the index sponsor has no obligation to consider your interests** — UBS and its affiliates are not affiliated with the index sponsor and have no ability to control or predict its actions, including any errors in or discontinuation of public disclosure regarding methods or policies relating to the calculation of the underlying asset. The index sponsor is 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, or the amounts payable on, your Notes.

**Potential UBS impact on price** — Trading or transactions by UBS and/or its affiliates in the underlying equity constituents, listed and/or over-the-counter options, futures or other instruments with returns linked to the

performance of the underlying asset or any underlying equity constituent may adversely affect the performance and, therefore, the market value of, and the amount payable at maturity on the Notes.

**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. The calculation agent can postpone the determination of the terms of the Notes on the trade date and the closing level on any trading day during the observation period (including the final valuation date), if a market disruption event occurs and is continuing on that day. As UBS determines the economic terms of the Notes, including the conditional return and lower barrier, and such terms include any 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.

**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 a total underwriting compensation in an amount equal to any 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.

**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

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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 asset to which the Notes are linked.

**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 or 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 Notes?” herein and “Material U.S. Federal Income Tax Consequences” in the accompanying product supplement.

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Hypothetical Examples and Return Table of the Notes at Maturity

The below examples and table are based on hypothetical terms. The actual terms will be set on the trade date and will be indicated on the cover of the applicable pricing supplement.

The examples and table below illustrate the payment at maturity for a \$1,000 Note on a hypothetical offering of the Notes, with the following assumptions (amounts may have been rounded for ease of analysis):

Term:	Approximately 12 months
Initial Level:	2,500
Conditional Return:	2.00%
Lower Barrier:	Initial Level minus 20.00% of the Initial Level
Maximum Payment Amount	\$1,200.00 per Note

Example 1: The closing level of the underlying asset is less than the lower barrier on a trading day during the observation period.

Because the closing level of the underlying asset is less than the lower barrier on a trading day during the observation period, UBS will automatically call the Notes and pay you an amount in cash per Note on the corresponding call payment date equal to the principal amount plus a return equal to the conditional return, calculated as follows:

$$\begin{aligned} & \$1,000 \times (1 + 2.00\%) \\ & = \$1,020 \text{ per Note (a 2.00\% total return).} \end{aligned}$$

Because the Notes are subject to an automatic call, your return is limited to the conditional return.

Example 2: The Notes are not subject to an automatic call and the underlying return is 10%.

Though the Notes are not subject to an automatic call, because the final level is equal to or greater than the initial level, UBS will pay you an amount in cash per Note on the maturity date equal to the principal amount, and you will not receive a positive return on the Notes.

Example 3: The Notes are not subject to an automatic call and the underlying return is -1%.

Because the Notes are not subject to an automatic call and the final level of the underlying asset has depreciated relative to the initial level, UBS will pay you an amount in cash per Note at maturity equal to the principal amount plus a return equal to the absolute value of the underlying return, calculated as follows:

$$\begin{aligned} & \$1,000 \times (1 + |-1.00\%|) \\ & = \$1,010 \text{ per Note (a 1.00\% total return).} \end{aligned}$$

Though the Notes are not subject to an automatic call and the final level of the underlying asset has depreciated relative to the initial level, because the absolute value of the underlying return is less than the conditional return, your return is less than it would have been if the Notes were subject to an automatic call.

Example 4: The Notes are not subject to an automatic call and the underlying return is -20%.

Because the Notes are not subject to an automatic call and the final level of the underlying asset has depreciated relative to the initial level, UBS will pay you an amount in cash per Note at maturity equal to the principal amount plus a return equal to the absolute value of the underlying return, calculated as follows:

$$\begin{aligned} & \$1,000 \times (1 + |-20.00\%|) \\ & = \$1,200 \text{ per Note (a 20.00\% total return).} \end{aligned}$$

Explanation of Responses:

Because the Notes are not subject to an automatic call and the level of the underlying asset has declined from the initial level to the final level, you will receive a return equal to the absolute value of the underlying return.

Table 1: Return on the Notes if not subject to an automatic call.

Absolute Value of the Underlying Return	Payment at Total	
	Maturity	Return per Note at Maturity
20.00%	\$1,000.00	0.00%
15.00%	\$1,000.00	0.00%
10.00%	\$1,000.00	0.00%
5.00%	\$1,000.00	0.00%
2.00%	\$1,000.00	0.00%
1.00%	\$1,000.00	0.00%
0.00%	\$1,000.00	0.00%
-5.00%	\$1,050.00	5.00%
-10.00%	\$1,100.00	10.00%
-15.00%	\$1,150.00	15.00%
-20.00%	\$1,200.00	20.00%

## Information About the Underlying Asset

All disclosures contained in this document 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.

Included on the following pages is a brief description of the 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 the underlying asset. We obtained the closing level information set forth below from Bloomberg Professional<sup>®</sup> service (“Bloomberg”) without independent verification. You should not take the historical prices of the underlying asset as an indication of future performance.

### S&P 500<sup>®</sup> Index

We have derived all information regarding the S&P 500<sup>®</sup> 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 Notes.

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 November 30, 2018 as follows: Information Technology (19.9%); Health Care (15.8%); Financials (13.7%); Consumer Discretionary (9.9%); Communication Services (9.9%); Industrials (9.4%); Consumer Staples (7.4%); Energy (5.4%); Utilities (3.1%); Real Estate (2.9%); and Materials (2.6%). As of the close of business on September 21, 2018, the index 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 document incorporated herein by reference. UBS has not conducted any independent review or due diligence of any publicly available information with respect to SPX.

### Historical Information

The following table sets forth the quarterly high and low closing levels for the S&P 500<sup>®</sup> Index, 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 S&P 500<sup>®</sup> Index on December 20, 2018 was 2,467.42 (the “hypothetical initial level”). The actual initial level will be the

closing level of the S&P 500<sup>®</sup> Index on the trade date. *Past performance of the S&P 500<sup>®</sup> Index is not indicative of the future performance of the S&P 500<sup>®</sup> Index.*

Quarter Begin	Quarter End	Quarterly Closing High	Quarterly Closing Low	Quarterly Close
1/1/2014	3/31/2014	1,878.04	1,741.89	1,872.34
4/1/2014	6/30/2014	1,962.87	1,815.69	1,960.23
7/1/2014	9/30/2014	2,011.36	1,909.57	1,972.29
10/1/2014	12/31/2014	2,090.57	1,862.49	2,058.90
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
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	12/20/2018*	2,925.51	2,467.42	2,467.42

\* 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 the S&P 500<sup>®</sup> Index from January 1, 2008 through December 20, 2018, based on information from Bloomberg. The dotted blue line represents a hypothetical initial level of 2,467.42 and the dotted green line represents a hypothetical lower barrier of 1,973.94, which is equal to the hypothetical initial level minus 20.00% of the hypothetical initial level. The actual initial level and lower barrier will be determined on the trade date. ***Past performance of the underlying asset is not indicative of the future performance of the underlying asset.***

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 Tax Consequences” in the accompanying product supplement and 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”) and 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.

Additionally, the discussion herein and in the accompanying product supplement does not address the consequences to taxpayers subject to special tax accounting rules under Section 451(b) of the Code.

*U.S. Tax Treatment.* Your Notes should be treated as contingent payment debt instruments (“CPDI”) subject to taxation under the “noncontingent bond method”. If your Notes are so treated, you should generally, for each accrual period, accrue original issue discount (“OID”) equal to the product of (i) the “comparable yield” (adjusted for the length of the accrual period) and (ii) the “adjusted issue price” of the Notes at the beginning of the accrual period. This amount is ratably allocated to each day in the accrual period and is includible as ordinary interest income by a U.S. holder for each day in the accrual period on which the U.S. holder holds the CPDI, whether or not the amount of any payment is fixed or determinable in the taxable year. Thus, the noncontingent bond method will result in recognition of income prior to the receipt of cash.

In general, the comparable yield of a CPDI is equal to the yield at which we would issue a fixed rate debt instrument with terms and conditions similar to those of the CPDI, including the level of subordination, term, timing of payments, and general market conditions. In general, because similar fixed rate debt instruments issued by us are traded at a price that reflects a spread above a benchmark rate, the comparable yield is the sum of the benchmark rate on the issue date and the spread.

As the Notes have only a single contingent payment at upon automatic call or at maturity, the adjusted issue price of each Note at the beginning of each accrual period is equal to the issue price of the Note plus the amount of OID previously includible in the gross income of the U.S. holder in respect of prior accrual periods.

In addition to the determination of a comparable yield, the noncontingent bond method requires the construction of a projected payment schedule. The projected payment schedule includes the projected amounts for each contingent payment to be made under the CPDI that are adjusted to produce the comparable yield. We have determined that the comparable yield for the Notes is equal to [n]% per annum, compounded semi-annually, with a projected payment at maturity of \$[n] based on an investment of \$1,000.

Based on this comparable yield, if you are an initial holder that holds a Note until maturity and you calculate your taxes on a calendar year basis, we have determined that you would be required to report the following amounts as ordinary interest income from the Note, not taking into account any positive or negative adjustments you may be required to take into account based on actual payments on such Note:

Accrual Period	Interest Deemed to Accrue During Accrual Period (per \$1,000 Note)	Total Interest Deemed to Have Accrued From Original Issue Date (per \$1,000 Note) as of End of Accrual Period
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January 2, 2019 through December 31, 2019	\$[n]	\$[n]
January 1, 2020 through January 3, 2020	\$[n]	\$[n]

A U.S. holder of the Notes is required to use our projected payment schedule to determine its interest accruals and adjustments, unless such holder determines that our projected payment schedule is unreasonable, in which case such holder must disclose its own projected payment schedule in connection with its U.S. federal income tax return and the reason(s) why it is not using our projected payment schedule. **Neither the comparable yield nor the projected payment schedule constitutes a representation by us regarding the actual contingent amount(s) that we will pay on a Note.**

If the actual amounts of contingent payments are different from the amounts reflected in the projected payment schedule, a U.S. holder is required to make adjustments in its OID accruals under the noncontingent bond method described above when those amounts are paid. Accordingly, an adjustment arising from the contingent payment made at maturity that is greater than the assumed amount of such payment is referred to as a “positive adjustment”; such adjustment arising from the contingent payment at maturity that is less than the assumed amount of such payment is referred to as a “negative adjustment”. Any positive adjustment for a taxable year is treated as additional OID income of the U.S. holder. Any net negative adjustment reduces any OID on the Note for the taxable year that would otherwise accrue. Any excess is then treated as a current-year ordinary loss to the U.S. holder to the extent of OID accrued in prior years.

In general, a U.S. holder’s basis in a CPDI is increased by the projected contingent payments accrued by such holder under the projected payment schedule (as determined without regard to adjustments made to reflect differences between actual and projected payments) and the projected amount of any contingent payments previously made. Gain on the taxable disposition of a CPDI generally is treated as ordinary income. Loss, on the other hand, is treated as ordinary loss only to the extent of the U.S. holder’s prior net OID inclusions (i.e., reduced by the total net negative adjustments previously allowed to the U.S. holder as an ordinary loss) and capital loss to the extent in excess thereof. However, the deductibility of a capital loss realized on the taxable disposition of a Note is subject to limitations. Under the rules governing CPDI, special rules would apply to a person who purchases Notes at a price other than the adjusted issue price as determined for tax purposes.

A U.S. holder that purchases a Note for an amount other than the public offering price of the Note will be required to adjust its OID inclusions to account for the difference. These adjustments will affect the U.S. holder's basis in the Note. Reports to U.S. holders may not include these adjustments. U.S. holders that purchase Notes at other than the issue price to public should consult their tax advisor regarding these adjustments.

Prospective investors should consult their tax advisor with respect to the application of the CPDI provisions to the Notes.

Based on certain factual representations received from us, our counsel, Cadwalader, Wickersham & Taft LLP, is of the opinion that your Notes should be treated in the manner described above.

*Alternative Characterizations.* 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 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. In particular, the IRS might assert that the Notes should be treated as deemed to be redeemed and reissued on any rebalancing of the underlying asset or rollover of, or change to, the underlying equity constituents.

*Medicare Tax on Net Investment Income.* U.S. holders that are individuals or estates and certain trusts are subject to an additional 3.8% tax on all or a portion of their "net investment income," or "undistributed net investment income" in the case of an estate or trust, which may include any income or gain realized with respect to the Notes, to the extent of their net investment income or undistributed net investment income (as the case may be), 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 regular income tax. U.S. holders should consult their tax advisors with respect to their consequences with respect to the 3.8% Medicare tax.

*Specified Foreign Financial Assets.* Certain U.S. holders that own "specified foreign financial assets" in excess of an applicable threshold may be subject to reporting obligations with respect to such assets with their tax returns, especially if such assets are held outside the custody of a U.S. financial institution. You are urged to consult your tax advisor as to the application of this legislation to your ownership of the Notes.

*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 foreign 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 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 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 the underlying asset, 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 the underlying asset, the underlying equity 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 you enter, or have entered, into certain other transactions in respect of the underlying asset, the underlying equity constituents or the Notes. If you enter, or have entered, into other transactions in respect of the underlying asset, the underlying equity constituents or the Notes should consult your tax advisor regarding the application of Section 871(m) of the Code to your Notes in the context of your other transactions.

*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” made on or after July 1, 2014, 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 (and/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 advisor 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.

As mentioned above, alternative characterizations of the Notes for U.S. federal income tax purposes are possible. Should an alternative characterization of the Notes cause payments with respect to the Notes to become subject to withholding tax, we (or the applicable withholding agent) will withhold tax at the applicable statutory rate and we will not make payments of any additional amounts.

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, including the portfolio interest rule, 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.

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

We will agree to sell to UBS Securities LLC and UBS Securities LLC will agree to purchase, all of the Notes at the issue price to the public less any underwriting discount indicated on the cover hereof. UBS Securities LLC will agree 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 the 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 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 4 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.

You should rely only on the information incorporated by reference or provided in this preliminary pricing supplement, the Market-Linked Securities product supplement or the accompanying prospectus. We have not authorized anyone to provide you with different information. We are not making an offer of these Notes in any state where the offer is not permitted. You should not assume that the information in this preliminary pricing supplement is accurate as of any date other than the date on the front of the document.

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UBS AG Bearish Barrier Market Linked Notes with Daily Autocall Barrier Observation due on or about January 3, 2020

Preliminary Pricing Supplement dated December 24, 2018  
(To Product Supplement dated October 31, 2018,  
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and Prospectus dated October 31, 2018)

UBS Investment Bank  
UBS Financial Services Inc.