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Registration Statement No. 333-225551

FINAL TERMS SUPPLEMENT

(To Prospectus dated October 31, 2018, Product Supplement dated October 31, 2018 and Prospectus Supplement dated November 1, 2018)

Final Terms Supplement

UBS AG Trigger Phoenix Autocallable Optimization Securities

UBS AG \$695,000.00 Securities Linked to the shares of SPDR® S&P 500® ETF Trust due on December 10, 2020

Final Terms

Issuer	UBS AG, London Branch		
	\$10.00 per security. The Securities are offered at a minimum investment of 100 Securities at		
Principal Amount	\$10.00 per Security (representin excess thereof.	g a \$1,000 investment) and integral multiples of \$10.00 in	
Term	Approximately 24 months, unless called earlier.		
Underlying Asset	Inderlying Asset The shares of SPDR [®] S&P 500 [®] ETF Trust		
	If the closing price of the underlying asset is equal to or greater than the coupon barrier on any observation date, UBS will pay you the contingent coupon applicable to such observation date.		
	If the closing price of the underl	ying asset is less than the coupon barrier on any observation icable to such observation date will not be payable and	
Contingent Coupon	UBS will not make any paymen	to you on the relevant coupon payment date.	
	fixed amount based upon equal quarterly installments at the te. Contingent coupons are not guaranteed and UBS will not or any observation date on which the closing price of the coupon barrier. The table below reflects the contingent . Amounts in the table below may have been rounded for		
	Observation Date*	Contingent Coupon (per security)	
	06-Mar-2019	\$0.2188	

06-Jun-2019	\$0.2188
06-Sep-2019	\$0.2188
06-Dec-2019	\$0.2188
06-Mar-2020	\$0.2188
08-Jun-2020	\$0.2188
08-Sep-2020	\$0.2188
07-Dec-2020	\$0.2188

*Observation dates are subject to the market disruption event provisions set forth in the accompanying product supplement. Contingent Coupon 8.75% per annum (or approximately 2.188% per outstanding quarter). Rate The Securities will be called automatically if the closing price of the underlying asset on any observation date is equal to or greater than the initial price. If the Securities are called on any observation date, UBS will pay you on the corresponding coupon payment date a cash payment Automatic Call Feature per Security equal to your principal amount plus the contingent coupon otherwise due on such date pursuant to the contingent coupon feature. No further amounts will be owed to you under the Securities. If the Securities are not called and the final price is equal to or greater than the trigger price and coupon barrier, UBS will pay you a cash payment per Security on the maturity date equal to your principal plus the contingent coupon otherwise due on the maturity date. Payment at Maturity (per Security) If the Securities are not called and the final price is less than the trigger price, UBS will pay you a cash payment on the maturity date of significantly less than the principal amount, if anything, resulting in a loss of principal that is proportionate to the decline of the underlying asset, for an amount equal to $10 + (10 \times 10 \times 10^{10} \times 10$ Final Price – Initial Price Underlying Return Initial 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 **Closing Price** securities exchange on which it is listed for trading, as determined by the calculation agent. \$269.84, which is the closing price of the underlying asset on the trade date, as determined by **Initial Price** the calculation agent and as may be adjusted in the case of certain corporate events, as described in the accompanying product supplement.

\$215.87, which is 80.00% 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.
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.
December 6, 2018
December 10, 2018
December 7, 2020 (subject to postponement in the event of a market disruption event, as described in the accompanying product supplement)
December 10, 2020 (subject to postponement in the event of a market disruption event, as described in the accompanying product supplement)
Three business days following each observation date, except the coupon payment date for the final valuation date will be the maturity date.
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The estimated initial value of the Securities as of the trade date is \$9.79 for Securities linked to the underlying asset. The estimated initial value of the Securities was determined as of the close of the relevant markets on the date of this final 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 Securities, see "Key Risks - Fair value considerations" and "Key Risks - Limited or no secondary market and secondary market price considerations" in this final terms supplement.

Notice to investors: the Securities are significantly riskier than conventional debt instruments. The issuer is not necessarily obligated to repay the full principal amount of the Securities at maturity, and the Securities may have the same downside market risk as 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 Securities if you do not understand or are not comfortable with the significant risks involved in investing in the Securities.

You should carefully consider the risks described under "Key Risks" in this final terms supplement, under "Key Risks" beginning on page 3 of the prospectus supplement and under "Risk Factors" beginning on page PS-9 of the accompanying product supplement before purchasing any Securities. Events relating to any of those risks, or other risks and uncertainties, could adversely affect the market value of, and the return on, your Securities. You may lose a significant portion or all of your initial investment in the Securities. The Securities 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 Securities or passed upon the adequacy or accuracy of this final 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 Securities 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 Securities" in this final terms supplement. The Securities we are offering will have the terms set forth in the Prospectus Supplement dated November 1, 2018 relating to the Securities, the accompanying product supplement, the accompanying prospectus and this final terms supplement.

Offering of Securities	Issue Price (Total	to Public Per Security	Underwritin Total	g Discoun Per Security	t Proceeds to Total) UBS AG Per Security
Securities linked to the shares of SPDR® S&P 500® ETF Trust	\$695,000.00	\$10.00	\$10,425.00	\$0.15	\$684,575.00	\$9.85

UBS Financial Services Inc.

UBS Investment Bank

Final Terms Supplement dated December 6, 2018

Additional Information About UBS and the Securities

UBS has filed a registration statement (including a prospectus, as supplemented by a product supplement and a prospectus supplement for the Securities) with the Securities and Exchange Commission, or SEC, for the offering for which this final terms supplement relates. Before you invest, you should read these documents and any other documents relating to the Securities 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 website at www.sec.gov as follows:

- Prospectus supplement dated November 1, 2018: <u>http://www.sec.gov/Archives/edgar/data/1114446/000091412118002132/ub46175276-424b2.htm</u>
- Market-Linked Securities product supplement dated October 31, 2018: <u>http://www.sec.gov/Archives/edgar/data/1114446/000091412118002085/ub47016353-424b2.htm</u>
- Prospectus dated October 31, 2018: <u>http://www.sec.gov/Archives/edgar/data/1114446/000119312518314003/d612032d424b3.htm</u>

References to "UBS," "we," "our" and "us" refer only to UBS AG and not to its consolidated subsidiaries. In this document, "Trigger Phoenix Autocallable Optimization Securities" or the "Securities" refer to the Securities that are offered hereby. Also, references to the "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 Securities generally, and references to the "accompanying prospectus" mean the UBS prospectus titled "Debt Securities and Warrants", dated October 31, 2018.

This final terms supplement, together with the documents listed above, contains the terms of the Securities and supersedes all other prior or contemporaneous oral statements as well as any other written materials including 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" and in "Risk Factors" in the accompanying product supplement, as the Securities 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 Securities.

UBS reserves the right to change the terms of, or reject any offer to purchase, the Securities prior to their issuance. In the event of any changes to the terms of the Securities, 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 Securities involves significant risks. Some of the risks that apply to the Securities 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 Securities generally in "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 Securities.

Risk of loss at maturity - The Securities differ from ordinary debt securities in that UBS will not necessarily pay the full principal amount of the Securities at maturity. If the Securities are not called, UBS will repay you the principal amount of your Securities in cash only if the final price of the underlying asset is equal to or greater than the trigger price and will only make such payment at maturity. If the Securities are not called and the final price is less than the trigger price, you will be fully exposed to the negative underlying return and lose a significant portion or all of your initial investment in an amount proportionate to the decline in the price of the underlying asset.

The contingent repayment of your principal applies only at maturity - You should be willing to hold your Securities to maturity. If you are able to sell your Securities 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 trigger price at that time.

You may not receive any contingent coupons - UBS will not necessarily pay periodic contingent coupons on the Securities. If the closing price of the underlying asset on an observation date is less than the coupon barrier, UBS will not pay you the contingent coupon applicable to such observation date. If the closing price of the underlying asset is less than the coupon barrier on each of the observation dates, UBS will not pay you any contingent coupons during the term of, and you will not receive a positive return on, your Securities. Generally, this non-payment of the contingent coupon coincides with a period of greater risk of principal loss on your Securities.

Your potential return on the Securities is limited and you will not participate in any appreciation of the underlying asset - The return potential of the Securities is limited to the contingent coupon rate, regardless of the appreciation of the underlying asset. In addition, the total return on the

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Securities will vary based on the number of observation dates on which the requirements of the contingent coupon have been met prior to maturity or an automatic call. Further, if the Securities are called due to the automatic call feature, you will not receive any contingent coupons or any other payment in respect of any observation dates after the applicable call settlement date. Since the Securities could be called as early as the first observation date, the total return on the Securities could be minimal. If the Securities are not called, you will not participate in any appreciation in the price of the underlying asset even though you will be subject to the underlying asset's risk of decline. As a result, the return on an investment in the Securities could be less than the return on a direct investment in the underlying asset.

Higher contingent coupon rates are generally associated with a greater risk of loss - Greater expected volatility with respect to the underlying asset reflects a higher expectation as of the trade date that the price of such underlying asset could close below its trigger price on the final valuation date of the Securities. This greater expected risk will generally be reflected in a higher contingent coupon rate for that Security. However, an underlying asset's volatility can change significantly over the term of the Securities and the price of the underlying asset for your Securities could fall sharply, which could result in a significant loss of principal.

Reinvestment risk - The Securities will be called automatically if the closing price of the underlying asset is equal to or greater than the initial price on any observation date. In the event that the Securities are called prior to maturity, there is no guarantee that you will be able to reinvest the proceeds from an investment in the Securities at a comparable rate of return for a similar level of risk. To the extent you are able to reinvest such proceeds in an investment comparable to the Securities, you will incur transaction costs and the original issue price for such an investment is likely to include certain built-in costs such as dealer discounts and hedging costs.

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 closing price of the underlying asset could be less than the coupon barrier on any observation date and that the final price of the underlying asset could be less than the trigger price on the final valuation date and, as a consequence, indicates an increased risk of loss. However, the underlying asset's volatility can change significantly over the term of the Securities, and a relatively lower coupon barrier and/or trigger price may not necessarily indicate that the Securities 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 a significant portion or all of your initial investment.

Credit risk of UBS - The Securities 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 Securities, 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 Securities 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 Securities 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 Securities, should make your own investigation into the underlying asset issuer and the underlying asset for your Securities. We urge you to review financial and other information filed periodically by the underlying asset issuer with the SEC.

• Fair value considerations.

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The issue price you pay for the Securities exceeds their estimated initial value - The issue price you pay for the Securities exceeds 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 determined the estimated initial value of the Securities by reference to our internal pricing models and it is set forth in this final terms supplement. The pricing models used to determine the estimated • initial value of the Securities incorporate certain variables, including the price, volatility and expected dividends on the underlying asset, prevailing interest rates, the term of the Securities 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 Securities to you. Due to these factors, the estimated initial value of the Securities as of the trade date is less than the issue price you pay for the Securities.

The estimated initial value is a theoretical price; the actual price that you may be able to sell your Securities in any secondary market (if any) at any time after the trade date may differ from the estimated initial value - The value of your Securities 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 Securities in the secondary market, the actual value you would receive may differ, perhaps materially, from the estimated initial value of the Securities determined by reference to our internal pricing models. The estimated initial value of the Securities does not represent a minimum or maximum price at which we or any of our affiliates would be willing to purchase your Securities 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 Securities as of the trade date - We may determine the economic terms of the Securities, as well as hedge our obligations, at least in part, prior to pricing the Securities 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 Securities cannot be determined as of the trade date and any such differential between the estimated initial value and the issue price of the Securities as of the trade date does not reflect our actual

profits. Ultimately, our actual profits will be known only at the maturity of the Securities.

•Limited or no secondary market and secondary market price considerations.

There may be little or no secondary market for the Securities - The Securities 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 Securities will develop. UBS Securities LLC and its affiliates may make a market in each offering of the Securities, although they are not required to do so and may stop making a market at any time. If you are able to sell your Securities prior to maturity, you may have to sell them at a substantial loss. The estimated initial value of the Securities does not represent a minimum or maximum price at which we or any of our affiliates would be willing to purchase your Securities in any secondary market at any time. The price at which UBS Securities LLC and its affiliates may offer to buy the Securities in the secondary market (if any) may be greater than UBS' valuation of the Securities 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 Securities, UBS Securities LLC or its affiliates may offer to buy or sell such Securities at a price that exceeds (i) our valuation of the Securities 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 Securities 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 Securities, 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 Securities. As described above, UBS Securities LLC and its affiliates are not required to make a market for the Securities 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 Securities prior to maturity - The market price of the Securities 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 Securities; 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 Securities. **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 Securities in any secondary market.

Owning the Securities is not the same as owning the underlying asset - The return on your Securities 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 over the term of your Securities. Furthermore, the underlying asset may appreciate substantially during the term of your Securities and you will not participate in such appreciation.

No assurance that the investment view implicit in the Securities will be successful - It is impossible to predict whether and the extent to which the price of the underlying asset will rise or fall. The price of the underlying asset • will be influenced by complex and interrelated political, economic, financial and other factors that affect the

- will be influenced by complex and interrelated political, economic, financial and other factors that affect the underlying asset issuer. You should be willing to accept the risks of owning equities in general and the underlying asset in particular, and the risk of losing a significant portion or all of your initial investment.
- There is no affiliation between the underlying asset issuer, or for Securities linked to exchange traded funds, the issuers of the constituent stocks comprising the underlying asset (the "underlying asset constituent stock issuers"), and UBS, 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 Securities, 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 Securities offered hereby in any way and has no obligation of any sort with respect to your Securities. 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 Securities.
- The calculation agent can make adjustments that affect the payment to you at maturity- For certain corporate events affecting the underlying asset, the calculation agent may make adjustments to the initial price, the coupon barrier, the trigger price and/or the final price of the underlying asset. However, the calculation agent will not make an adjustment in response to all events that could affect the underlying asset. If an event occurs that does not require the calculation agent to make an adjustment, the value of the Securities may be materially and adversely affected. In addition, all determinations and calculations concerning any such adjustments will be made by the calculation agent. You should be aware that the calculation agent may make any such adjustment, determination or calculation in a manner that differs from that discussed in the accompanying product supplement as necessary to achieve an equitable result. 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 asset 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 Securities. For more information, see the sections "General Terms of the Securities -- Antidilution Adjustments for Securities Linked to an Underlying Asset or Equity Basket Asset" and " -- Reorganization Events for Securities Linked to an Underlying Asset 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 trigger price (as such trigger price may be adjusted by the calculation agent upon occurrence of one or more such events). Regardless of any of the events discussed above, any payment on the Securities is subject to the creditworthiness of UBS.

The value of the underlying equity may not completely track the value of the securities in which such exchange traded fund invests — The underlying equity may be an exchange traded fund, and although the trading characteristics and valuations of such underlying equity will usually mirror the characteristics and valuations of the securities in which such exchange traded fund invests, its value may not completely track the value of such securities. The value of the underlying equity will reflect transaction costs and fees that the securities in which that exchange traded fund invests do not have. In addition, although the underlying equity may be currently listed for trading on an exchange, there is no assurance that an active trading market will continue for such underlying equity or that there will be liquidity in the trading market.

Fluctuation of NAV — The net asset value (the "NAV") of an exchange traded fund may fluctuate with changes in the market value of such exchange traded fund's securities holdings. The market prices of the underlying equity may
fluctuate in accordance with changes in NAV and supply and demand on the applicable stock exchanges. In addition, the market price of the underlying equity may differ from its NAV per share; the underlying equity may

trade at, above or below its NAV per share.

Failure of the underlying equity to track the level of the underlying index — The underlying equity may be an exchange traded fund. Such underlying equity may be designed and intended to track the level of a specific index

• (an "underlying index"), but various factors, including fees and other transaction costs, may prevent the underlying equity from correlating exactly with changes in the level of such underlying index. Accordingly, the performance of the underlying equity may not be equal to the performance of its underlying index.

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 Securities.

Potential conflict of interest - UBS and its affiliates may engage in business with the issuer of the underlying asset, which may present a conflict between the obligations of UBS and you, as a holder of the Securities. There are also potential conflicts of interest between you and the calculation agent, which will be an affiliate of UBS. The calculation agent will determine whether the final price is below the trigger price and accordingly the payment at maturity on your Securities. 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 initial price, the trigger price, the coupon barrier, 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 Asset or Equity Basket Asset" and "--Reorganization Events for Securities Linked to an Underlying Asset or Equity Basket Asset" in the accompanying product supplement. As UBS determines the economic terms of the Securities, including the contingent coupon rate, trigger price and coupon barrier, and such terms include the underwriting discount, hedging costs, issuance costs and projected profits, the Securities represent a package of economic terms. There are other potential conflicts of interest insofar as an investor could potentially get better economic terms if that investor entered into exchange-traded and/or OTC derivatives or other instruments with third parties, assuming that such instruments were available and the investor had the ability to assemble and enter into such instruments.

• Potentially inconsistent research, opinions or recommendations by UBS - UBS and its affiliates publish research from time to time on financial markets and other matters that may influence the value of the Securities, or express opinions or provide recommendations that are inconsistent with purchasing or holding the Securities. Any research, opinions or recommendations expressed by UBS or its affiliates may not be consistent with each other and

may be modified from time to time without notice. Investors should make their own independent investigation of the merits of investing in the Securities and the underlying asset to which the Securities are linked.

The Securities are not bank deposits - An investment in the Securities carries risks which are very different from • the risk profile of a bank deposit placed with UBS or its affiliates. The Securities 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 Securities 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 Securities) 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 Securities, 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 Securities. The BIO-FINMA provides that a debt-to-equity swap and/or a write-off of debt and other obligations (including the Securities) 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 Securities 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 Securities. Consequently, holders of Securities may lose all of some of their investment in the Securities. 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 Securities 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 act in various capacities with respect to the Securities. We and our affiliates may act as a principal, agent or dealer in connection with the sale of the Securities. Such affiliates, including the sales representatives, will derive compensation from the distribution of the Securities and such compensation may serve as an incentive to sell these Securities instead of other investments. We will pay total

underwriting compensation of 1.50% per Security to any of our affiliates acting as agents or dealers in connection with the distribution of the Securities. 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 Securities in the secondary market.

Uncertain tax treatment - Significant aspects of the tax treatment of the Securities are uncertain. You should read carefully the sections entitled "What are the Tax Consequences of the Securities" 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.

The SPY Trust utilizes a passive indexing investment approach - The SPDR® S&P 500® ETF Trust (the "SPY Trust") is not managed according to traditional methods of "active" investment management, which involve the buying and selling of securities based on economic, financial and market analysis and investment judgment. Instead, the SPY Trust, utilizing a "passive" or indexing investment approach, attempts to approximate the investment performance of the target index by investing in a portfolio of stocks that generally replicate such target index. Therefore, unless a specific stock is removed from the target index, the SPY Trust generally would not sell a stock because the stock's issuer was in financial trouble. In addition, the SPY Trust is subject to the risk that the investment strategy of the SPY Trust's investment adviser may not produce the intended results.

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.

SPDR® S&P 500® ETF Trust

"We have derived all information contained herein regarding the SPDR® S&P 500® ETF Trust (the "SPY Trust") from publicly available information. Such information reflects the policies of, and is subject to change by, PDR Services LLC, the sponsor of the SPY Trust has appointed State Street Global Advisors Trust Company as trustee of the SPY Trust (the "Trustee"), effective on June 16, 2017. UBS has not undertaken an independent review or due diligence of any publicly available information regarding the SPY Trust.

The SPY Trust is a unit investment trust that issues securities called "trust units" or "units" of the SPY Trust (the "SPDRs"), each of which represents a fractional undivided ownership interest in the SPY Trust. The SPY Trust is designed to generally correspond to the price and yield performance, before fees and expenses, of the S&P 500® Index. The Trustee on a nondiscretionary basis adjusts the composition of the portfolio of stocks held by the SPY Trust to conform to changes in the composition and/or weighting structure of the S&P 500® Index. Although the SPY Trust may at any time fail to own certain securities included within the S&P 500® Index, the SPY Trust will be substantially invested in the constituent stocks of the S&P 500® Index.

The S&P 500® Index was developed by Standard & Poor's Financial Services LLC, a subsidiary of The McGraw-Hill Companies, Inc. ("S&P") and is calculated, maintained and published by S&P. S&P is under no obligation to continue to publish, and may discontinue or suspend the publication of the S&P 500® Index at any time. The S&P 500® Index is composed of the selected stocks of five-hundred (500) United States companies, all of which are listed on national stock exchanges and spans over 25 separate industry groups. Since 1968, the S&P 500® Index has been a component of the U.S. Commerce Department's list of Leading Indicators that track key sectors of the U.S. economy.

As of March 31, 2017, ordinary operating expenses of the SPY Trust are expected to accrue at an annual rate of 0.0945% of the SPY Trust's daily net asset value. Expenses of the SPY Trust reduce the net value of the assets held by the SPY Trust and, therefore, reduce the value of each unit of the SPY Trust.

As of March 31, 2017, the SPY Trust's top holdings were stocks of U.S. companies in the following industry sectors: Information Technology (22.08%), Financials (14.37%), Health Care (13.91%), Consumer Discretionary (12.34%), Industrials (10.08%), Consumer Staples (9.30%) Energy (6.57%), Utilities (3.18%), Real Estate (2.93%) and Materials (2.83%).

In making your investment decision you should review the prospectus related to the SPY Trust, dated January 19, 2017 (as amended April 28, 2017),, filed by PDR Services, LLC (the "SPDR 500 Trust Prospectus") available at:

January 19, 2017:

sec.gov/Archives/edgar/data/884394/000119312517014316/d296550d497.htm

April 28, 2017:

sec.gov/Archives/edgar/data/884394/000119312517146441/d386132d497.htm

In addition, the SPDR 500 Trust Prospectus is available on the SPY Trust's website as indicated below. In making your investment decision you should pay particular attention to the sections of the SPDR 500 Trust Prospectus entitled "Principal Risks of Investing in the Trust" and "Additional Risk Information." UBS has not undertaken an independent review or due diligence of any publicly available information regarding the SPDR 500 Trust Prospectus, and such information is not incorporated by reference in, and should not be considered part of, this document or any accompanying prospectus.

The SPY Trust's website is spdrs.com/product/fund.seam?ticker=spy. Shares of the SPY Trust are listed on the NYSE Arca under ticker symbol "SPY."

Information filed by the SPY Trust with the SEC can be found by reference to its SEC file numbers: 033-46080 and 811-06125.

"

Information from outside sources is not incorporated by reference in, and should not be considered part of, this final 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 SPY Trust's shares, based on daily closing prices on the primary exchange for SPY Trust. We obtained the closing prices below from Bloomberg Professional service ("Bloomberg"), without independent verification. UBS has not undertaken an independent review or due diligence of any publicly available information obtained from Bloomberg. SPY Trust's closing price on December 6, 2018 was \$269.84. 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	\$188.26	\$174.15	\$187.04
04/01/2014	06/30/2014	\$196.48	\$181.48	\$195.72
07/01/2014	09/30/2014	\$201.82	\$190.99	\$197.02
10/01/2014	12/31/2014	\$208.72	\$186.27	\$205.50
01/02/2015	03/31/2015	\$211.99	\$198.97	\$206.43
04/01/2015	06/30/2015	\$213.50	\$205.42	\$205.85
07/01/2015	09/30/2015	\$212.59	\$187.27	\$191.63
10/01/2015	12/31/2015	\$211.00	\$192.13	\$203.89
01/04/2016	03/31/2016	\$206.10	\$183.03	\$205.56
04/01/2016	06/30/2016	\$212.39	\$199.53	\$209.53
07/01/2016	09/30/2016	\$219.09		

The EURO STOXX 50® Index

The EURO STOXX 50[®] Index ("SX5E") was created by STOXX, a joint venture between Deutsche

Börse AG and SIX Group AG. Publication of the SX5E began in February 1998, based on an initial Index level of 1,000 at December 31, 1991. On March 1, 2010, STOXX announced the removal of the "Dow Jones" prefix from all of its indices, including the SX5E. Additional information about the SX5E is available on the STOXX Limited website: http://www.stoxx.com. However, information included in that website is not included or incorporated by reference in this pricing supplement.

SX5E Composition and Maintenance

For each of the 19 EURO STOXX regional supersector indices, the stocks are ranked in terms of free-float market capitalization. The largest stocks are added to the selection list until the coverage is close to, but still less than, 60% of the free-float market capitalization of the corresponding supersector index. If the next highest-ranked stock brings the coverage closer to 60% in absolute terms, then it is also added to the selection list. All current stocks in the index are then added to the selection list. All of the stocks on the selection list are then ranked in terms of free-float market capitalization to produce the final index selection list. The largest 40 stocks on the selection list are selected; the remaining 10 stocks are selected from the largest remaining current stocks ranked between 41 and 60; if the number of stocks selected is still below 50, then the

largest remaining stocks are selected until there are 50 stocks. In exceptional cases, STOXX's management board can add stocks to and remove them from the selection list.

The index stocks are subject to a capped maximum index weight of 10%, which is applied on a quarterly basis.

The SX5E is composed of 50 component stocks of market sector leaders from within the 19 EURO STOXX[®] Supersector indices, which represent the Eurozone portion of the STOXX Europe 600[®] Supersector indices. The index stocks have a high degree of liquidity and represent the largest companies across a wide range of market sectors.

Composition and Maintenance of the SX5E

The composition of the SX5E is reviewed annually, based on the closing stock data on the last trading day in August. Changes in the composition of the SX5E are made to ensure that it includes the 50 market sector leaders from within the EURO STOXX Index.

The free float factors for each component stock used to calculate the SX5E, as described below, are reviewed, calculated, and implemented on a quarterly

basis and are fixed until the next quarterly review.

The SX5E is subject to a "fast exit rule." The index stocks are monitored for any changes based on the monthly selection list ranking. A stock is deleted from the SX5E if: (a) it ranks 75 or below on the monthly selection list and (b) it has been ranked 75 or below for a consecutive period of two months in the monthly selection list. The highest-ranked stock that is not already an index stock will replace it. Changes will be implemented on the close of the fifth trading day of the month, and are effective the next trading day.

The SX5E is also subject to a "fast entry rule." All stocks on the latest selection lists and initial public offering (IPO) stocks are reviewed for a fast-track addition on a quarterly basis. A stock is added, if (a) it qualifies for the latest STOXX blue-chip selection list generated end of February, May, August or November and (b) it ranks within the "lower buffer" on this selection list.

The SX5E is also reviewed on an ongoing basis. Corporate actions (including initial public offerings, mergers and takeovers, spin-offs, delistings, and bankruptcy) that affect the SX5E composition are immediately reviewed. Any changes are announced, implemented, and effective in line with the type of corporate action and the magnitude of the effect.

Calculation of the EURO STOXX 50[®] Index

The SX5E is calculated with the "Laspeyres formula," which measures the aggregate price changes in the index stocks against a fixed base quantity weight. The formula for calculating the SX5E value can be expressed as follows:

Index = <u>free float market</u> <u>capitalization of the index at the</u> <u>time</u>

divisor of the index at the time

The "free float market capitalization of the index" is equal to the sum of the products of the closing price, number of shares, free float factor and the weighting cap factor for each component company as of the

time that the SX5E is being calculated.

The divisor of the SX5E is adjusted to maintain the continuity of the SX5E's values across changes due to corporate actions, such as the deletion and addition of stocks, the substitution of stocks, stock dividends, and stock splits.

License Agreement

We have entered into a non-exclusive license agreement with STOXX, which grants us a license in exchange for a fee to use the SX5E in connection with the issuance of certain securities, including the notes.

STOXX and its licensors (the "Licensors") have no relationship with us or BMOCM, other than the licensing of the SX5E and the related trademarks for use in connection with the notes.

STOXX and its Licensors do not:

sponsor, endorse, sell or promote the notes.

recommend that any person • invest in the notes or any other securities.

have any responsibility or liability for or make any decisions about the timing, amount or pricing of the notes.

have any responsibility or liability for the administration, management or marketing of the notes.

consider the needs of the notes or the owners of the notes in •determining, composing or calculating the SX5E or have any obligation to do so.

STOXX and its Licensors will not have any liability in connection with the notes. Specifically,

STOXX and its Licensors do not make any warranty, • express or implied, and disclaim any and all warranty about:

the results to be obtained by the notes, the owner of the notes or any other person in connection with the use of the SX5E and the data included in the SX5E;

 ${}^{\mbox{\scriptsize \$}}_{\mbox{\scriptsize \$}}$ the accuracy or completeness of the SX5E and its data;

the merchantability and the fitness for a particular purpose or use of the SX5E or its data;

STOXX and its Licensors will have no liability for any •errors, omissions or interruptions in the SX5E or its data; and

any lost profits or indirect, punitive, special or · consequential damages or losses, even if STOXX knows that they might occur.

The licensing agreement among us, BMOCM and STOXX is solely for the benefit of the parties thereto and not for the benefit of the owner of the notes or any other third parties.

The Russell 2000® Index

The RTY was developed by Russell Investments ("Russell") before FTSE International Limited ("FTSE") and Russell combined in 2015 to create FTSE Russell, which is wholly owned by London Stock Exchange Group. Russell began dissemination of the RTY (Bloomberg L.P. index symbol "RTY") on January 1, 1984. The RTY was set to 135 as of the close of business on December 31, 1986. FTSE Russell calculates and publishes the RTY. The RTY is designed to track the performance of the small capitalization segment of the U.S. equity market. As a subset of the Russell 3000[®] Index, the RTY consists of the smallest 2,000 companies included in the Russell 3000[®] Index. The Russell 3000[®] Index measures the performance of the largest 3,000 U.S. companies. The RTY is determined, comprised, and calculated by FTSE Russell without regard to the notes.

Selection of Stocks Comprising the RTY

All companies eligible for inclusion in the RTY must be classified as a U.S. company under FTSE Russell's country-assignment methodology. If a company is incorporated, has

a stated headquarters location, and trades on a standard exchange in the same country (American Depositary Receipts and American Depositary Shares are not eligible), then the company is assigned to its country of incorporation. If any of the three factors are not the same, FTSE Russell defines three Home Country Indicators ("HCIs"): country of incorporation, country of headquarters, and country of the most liquid exchange (as defined by a two-year average daily dollar trading volume) ("ADDTV") from all exchanges within a country. Using the HCIs, FTSE Russell compares the primary location of the company's assets with the three HCIs. If the primary location of its assets matches any of the HCIs, then the company is assigned to the primary location of its assets. If there is insufficient information to determine the country in which the company's assets are primarily located, FTSE Russell will use the primary location of the company's revenue for the same cross-comparison and assigns the company to the appropriate country in a similar fashion. FTSE Russell uses the average of two years of assets or revenues data to reduce potential turnover. If conclusive country details cannot be derived from assets or revenues data, FTSE Russell will assign the company to the country in which its headquarters are located unless the country is a Benefit Driven Incorporation "BDI" country. If the country in which its headquarters are located is a BDI, it will be assigned to the country of its most liquid stock exchange. BDI countries include: Anguilla, Antigua and Barbuda, Aruba, Bahamas, Barbados,

Belize, Bermuda, Bonaire, British Virgin Islands, Cayman Islands, Channel Islands, Cook Islands, Curacao, Faroe Islands, Gibraltar, Guernsey, Isle of Man, Jersey, Liberia, Marshall Islands, Panama, Saba, Sint Eustatius, Sint Maarten, and Turks and Caicos Islands. For any companies incorporated or headquartered in a U.S. territory, including countries such as Puerto Rico, Guam, and U.S. Virgin Islands, a U.S. HCI is assigned.

All securities eligible for inclusion in the RTY must trade on a major U.S. exchange. Stocks must have a closing price at or above \$1.00 on their primary exchange on the "rank day" in May of each year (timetable is announced each spring) to be eligible for inclusion during annual reconstitution. However, in order to reduce unnecessary turnover, if an existing member's closing price is less than \$1.00 on the last day of May, it will be considered eligible if the average of the daily closing prices (from its primary exchange) during the month of May is equal to or greater than \$1.00. FTSE Russell adds initial public offerings (IPOs) each quarter to ensure that new additions to the institutional investing opportunity set are reflected in representative indexes. A stock added during the quarterly IPO process is considered a new index addition, and therefore must have a closing price on its primary exchange at or above \$1.00 on the last day of the eligibility period in order to qualify for index inclusion. If an existing index member does not

trade on the rank day, it must price at \$1.00 or above on another eligible U.S. exchange to remain eligible.

Royalty trusts, limited liability companies, closed-end investment companies (companies that are required to report Acquired Fund Fees and Expenses, as defined by the SEC, including business development companies, are not eligible), blank check companies, special-purpose acquisition companies, exchange traded funds, mutual funds and limited partnerships are ineligible for inclusion. Preferred and convertible preferred stock, redeemable shares, participating preferred stock, warrants, rights, installment receipts and trust receipts are not eligible for inclusion in the RTY.

Annual reconstitution is a process by which the RTY is completely rebuilt. On the rank day of July, all eligible securities are ranked by their total market capitalization. The largest 4,000 become the Russell 3000E Index, and the other FTSE Russell indexes are determined from that set of securities. Reconstitution of the RTY occurs on the last Friday in June or, when the last Friday in June is the 29th or 30th, reconstitution occurs on the prior Friday. In addition, FTSE Russell adds initial public offerings to the RTY on a quarterly basis based on total market capitalization ranking within the market-adjusted capitalization breaks established during the

most recent reconstitution.

After membership is determined, a security's shares are adjusted to include only those shares available to the public. This is often referred to as "free float." The purpose of the adjustment is to exclude from market calculations the capitalization that is not available for purchase and is not part of the investable opportunity set.

License Agreement

"Russell 2000" and "Russell 3000" are trademarks of FTSE Russell and have been licensed for use by us.

The notes are not sponsored, endorsed, sold or promoted by FTSE Russell. FTSE Russell makes no representation or warranty, express or implied, to the owners of the notes or any member of the public regarding the advisability of investing in securities generally or in the Notes particularly or the ability of the RTY to track general stock market performance or a segment of the same. FTSE Russell's publication of the RTY in no way suggests or implies an opinion by FTSE Russell as to the advisability of investment in any or all of the securities upon which the RTY is based. FTSE Russell's only relationship to the Issuer is the licensing of certain trademarks and trade names of

FTSE Russell and of the RTY which is determined, composed and calculated by FTSE Russell without regard to the Issuer or the notes. FTSE Russell is not responsible for and has not reviewed the notes nor any associated literature or publications and FTSE Russell makes no representation or warranty express or implied as to their accuracy or completeness, or otherwise. FTSE Russell reserves the right, at any time and without notice, to alter, amend, terminate or in any way change the RTY. FTSE Russell has no obligation or liability in connection with the administration, marketing or trading of the notes.

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PURPOSE OR USE WITH RESPECT TO THE RTY OR ANY DATA INCLUDED HEREIN WITHOUT LIMITING ANY OF THE FOREGOING. IN NO EVENT SHALL FTSE RUSSELL HAVE ANY LIABILITY FOR ANY SPECIAL, PUNITIVE, INDIRECT, OR CONSEQUENTIAL DAMAGES (INCLUDING LOST PROFITS), EVEN IF NOTIFIED OF THE POSSIBILITY OF SUCH DAMAGES.

VanEck Vectors[®] Gold Miners ETF

In this section, the Underlying Asset refers to the shares of the VanEck Vectors[®] Gold Miners ETF (the "GDX"), and the Underlying Index refers to the NYSE Arca Gold Miners Index.

The Underlying Asset is an investment portfolio maintained, managed and advised by Van Eck. The Market Vectors[®] ETF Trust is a registered open-end investment company that consists of numerous separate investment portfolios, including the Underlying Asset.

The Underlying Asset is an exchange traded fund that trades on NYSE Arca under the ticker symbol "GDX."

The Underlying Asset seeks to provide investment results that correspond generally to the price and yield performance, before fees and expenses, of the Underlying Index. The Underlying Index was developed by the NYSE Amex and is calculated, maintained and published by NYSE Arca. The Underlying Index is a modified market capitalization-weighted index comprised of publicly traded companies involved

primarily in mining for gold or silver.

The Underlying Asset utilizes a "passive" or "indexing" investment approach in attempting to track the performance of the Underlying Index. The Underlying Asset will invest in all of the securities which comprise the Underlying Index. The Underlying Asset will normally invest at least 95% of its total assets in common stocks that comprise the Underlying Index.

The notes are not sponsored, endorsed, sold or promoted by Van Eck. Van Eck makes no representations or warranties to the owners of the notes or any member of the public regarding the advisability of investing in the notes. Van Eck has no obligation or liability in connection with the operation, marketing, trading or sale of the notes.

The Underlying Index

We have derived all information contained in this pricing supplement regarding the Underlying Index, including, without limitation, its make-up, method of calculation and changes in its components, from publicly available information and information supplied by NYSE Arca. Such information reflects the policies of, and is subject to change by, NYSE Arca. The Underlying Index was

developed by the NYSE Amex (formerly the American Stock Exchange) and is calculated, maintained and published by the NYSE Arca. The NYSE Arca has no obligation to continue to publish, and may discontinue the publication of, the Underlying Index.

The Underlying Index includes common stocks, ADRs and GDRs of selected companies that are involved primarily in mining for gold or silver and that are listed for trading and electronically quoted on a major stock market that is accessible by foreign investors. Generally, this will include exchanges in most developed markets and major emerging markets, and will include companies that are cross-listed, e.g., both U.S. and Canadian listings. NYSE Arca will use its discretion to avoid exchanges and markets that are considered "frontier" in nature or have major restrictions to foreign ownership. The Underlying Index includes companies that derive at least 50% of their revenues from gold mining and related activities (40% for companies that were included in the Underlying Index prior to September 23, 2013). Also, the Underlying Index maintains exposure to companies with a significant revenue exposure to silver mining in addition to gold mining, which will not exceed 20% of the Underlying Index weight at each rebalance.

Only companies with market capitalizations greater than \$750

million that have an average daily volume of at least 50,000 shares over the past three months and an average daily value traded of at least \$1 million over the past three months are eligible for inclusion in the Underlying Index. Starting in December 2013, for companies that were included in the Underlying Index prior to September 23, 2013, the market capitalization requirement at each rebalance became \$450 million, the average daily volume requirement will be at least 30,000 shares over the past three months and the average daily value traded requirement will be at least \$600,000 over the past three months. NYSE Arca has the discretion to not include all companies that meet the minimum criteria for inclusion. The Underlying Index's benchmark value was 500.00 at the close of trading on December 20, 2002.

Calculation of the Underlying Index. The Underlying Index is calculated by NYSE Arca on a price return basis. The calculation is based on the current modified market capitalization divided by a divisor. The divisor was determined on the initial capitalization base of the Underlying Index and the base level and may be adjusted as a result of corporate actions and composition changes, as described below.

Index Maintenance. The Underlying Index is reviewed quarterly to ensure that at least 90% of the index weight is accounted for by index components that continue to meet the initial eligibility requirements. NYSE Arca may at any time and from time to time change the number of securities comprising the group by adding or deleting one or more securities, or replacing one or more securities contained in the group with one or more substitute securities of its choice, if in NYSE Arca's discretion such addition, deletion or substitution is necessary or appropriate to maintain the quality and/or character of the Underlying Index. Components will be removed from the Underlying Index during the quarterly review if (1) the market capitalization falls below \$450 million, or (2) the traded average daily shares for the previous three months is lower than 30,000 shares and the traded average daily value for the previous three

months is less than \$600,000.

At the time of the quarterly rebalance, the component security quantities will be modified to conform to the following asset diversification requirements:

the weight of any singlecomponent security may not(1) account for more than 20% ofthe total value of theUnderlying Index;

the component securities are split into two subgroups—large and small, which are ranked by market capitalization weight in the Underlying

(2) Index. Large securities are defined as having a starting index weight greater than or equal to 5%. Small securities are defined as having a starting index weight below 5%; and

the final aggregate weight of those component securities which individually represent
(3) more than 4.5% of the total value of the Underlying Index may not account for more than 45% of the total index value.

The weights of the components securities (taking into account expected component changes and share adjustments) are modified in accordance with the Underlying Index's diversification rules.

Changes to the index composition and/or the component security weights in the Underlying Index are determined and announced prior to taking effect, which typically occurs after the close of trading on the third Friday of each calendar quarter month in connection with the quarterly index rebalance. The share quantities of each component security in the index portfolio remains fixed between quarterly reviews except in the event of certain types of corporate actions such as stock splits, reverse stock splits, stock dividends, or similar events. The share quantities used in the index calculation are not typically adjusted for shares issued or repurchased between quarterly reviews. However, in the event of a merger between two components, the share quantity of the surviving entity may be adjusted to account for any stock issued in the acquisition. NYSE Arca may substitute securities or change the number of securities included in the Underlying Index, based on changing conditions in the industry or in the event of certain types of corporate actions, including mergers, acquisitions, spin-offs, and reorganizations. In the event of component or share quantity changes to the index portfolio, the payment of dividends other than ordinary cash dividends, spin-offs, rights offerings, re-capitalization, or other corporate actions affecting a component security of the Underlying Index, the index divisor may be adjusted to ensure that there are no changes to the index level as a result of nonmarket forces.

iShares[®] MSCI Emerging Markets ETF

In this section, the Underlying Asset refers to the shares of the iShares[®] MSCI Emerging Markets ETF (the "EEM"), and the Underlying Index refers to the MSCI Emerging Markets Index.

iShares consists of numerous separate investment portfolios (the "iShares Funds"), including the Underlying Asset. The Underlying Asset seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the Underlying Index. The Underlying Asset typically earns income from dividends from securities held by the Underlying Asset. These amounts, net of expenses and taxes (if applicable), are passed along to the Underlying Asset's shareholders as "ordinary income." In addition, the Underlying Asset realizes capital gains or losses whenever it sells securities. Net long-term capital gains are distributed to its shareholders as "capital gain distributions." However, because the notes are linked only to the share price of the Underlying Asset, you will not be entitled to receive income, dividend, or capital gain distributions from the Underlying Asset or any equivalent payments.

"iShare®" and "BlackRo®k are registered trademarks of BlackRock[®]. The notes are not sponsored, endorsed, sold, or promoted by BlackRock[®], or by any of the iShares[®] Funds. Neither BlackRock[®] nor the iShares[®] Funds make any representations or warranties to the owners of the notes or any member of the public regarding the advisability of investing in the notes. Neither BlackRock® nor the iShares[®] Funds shall have any obligation or liability in connection with the registration, operation, marketing, trading, or sale of the notes or in connection with our use of information about the Underlying Asset or any of the iShares[®] Funds.

The Underlying Asset is intended to provide investment results that correspond generally to the price and yield performance, before fees and expenses, of the MSCI Emerging Markets Index. This Underlying Asset trades on NYSE Arca under the ticker symbol "EEM."

The MSCI Emerging Markets Index

The MSCI Emerging Markets Index is intended to measure equity market performance in the global emerging markets. The MSCI Emerging Markets Index is a free float-adjusted market capitalization index with a base date of December 31, 1987 and

an initial value of 100. The MSCI Emerging Markets Index is calculated daily in U.S. dollars and published in real time every 60 seconds during market trading hours. The MSCI Emerging Markets Index currently consists of the following 24 emerging market country indices: Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Malaysia, Mexico, Pakistan, Peru, Philippines, Poland, Russia, Qatar, South Africa, South Korea, Taiwan, Thailand, Turkey and the United Arab Emirates.

The MSCI Emerging Markets Index is part of the MSCI Regional Equity Indices series and is an MSCI Global Investable Market Index, which is a family within the MSCI International Equity Indices. MSCI is the Index Sponsor of the MSCI Emerging Markets Index.

General – MSCI Global Investable Market Indices

MSCI provides global equity indices intended to measure equity performance in international markets and the MSCI International Equity Indices are designed to serve as global equity performance benchmarks. In constructing these indices, MSCI applies its index construction and maintenance methodology across developed, emerging, and frontier markets.

MSCI enhanced the methodology used in its MSCI International Equity Indices. The MSCI Standard and MSCI Small Cap Indices, along with the other MSCI equity indices based on them, transitioned to the global investable market indices methodology described below. The transition was completed at the end of May 2008. The Enhanced MSCI Standard Indices are composed of the MSCI Large Cap and Mid Cap Indices. The MSCI Global Small Cap Index transitioned to the MSCI Small Cap Index resulting from the Global Investable Market Indices methodology and contains no overlap with constituents of the transitioned MSCI Standard Indices. Together, the relevant MSCI Large Cap, Mid Cap, and Small Cap Indices will make up the MSCI investable market index for each country, composite, sector, and style index that MSCI offers.

Constructing the MSCI Global Investable Market Indices. MSCI undertakes an index construction process, which involves:

• defining the equity universe;

determining the market • investable equity universe for each market;

determining market • capitalization size segments for each market;

applying index continuity rules for the MSCI Standard Index;

creating style segments within •each size segment within each market; and

classifying securities under the •Global Industry Classification Standard (the "GICS").

Defining the Equity Universe. The equity universe is defined by:

Identifying Eligible Equity Securities: the equity universe initially looks at securities listed in any of the countries in the MSCI Global Index Series, which will be classified as either Developed Markets ("DM") or Emerging Markets ("EM"). All listed equity securities, or listed securities that exhibit · characteristics of equity securities, except mutual funds, exchange traded funds, equity derivatives, limited partnerships, and most investment trusts, are eligible for inclusion in the equity universe. Real Estate Investment Trusts ("REITs") in some countries and certain income trusts in Canada are also eligible for inclusion.

Classifying Eligible Securities into the Appropriate Country: •each company and its securities (i.e., share classes) are classified in only one country.

Determining the Market Investable Equity Universes. A market investable equity universe for a market is derived by applying investability screens to individual companies and securities in the equity universe that are classified in that market. A market is equivalent to a single country, except in DM Europe, where all DM countries in Europe are aggregated into a single market for index construction purposes. Subsequently, individual DM Europe country indices within the MSCI Europe Index are derived from the constituents of the MSCI Europe Index under the global investable market indices methodology.

The investability screens used to determine the investable equity universe in each market are as follows:

Equity Universe Minimum Size Requirement: this investability screen is applied at the company level. In order to be included in a market investable equity universe, a company must have the required minimum full market capitalization.

• Equity Universe Minimum Free Float-Adjusted Market Capitalization Requirement: this investability screen is applied at

the individual security level. To be eligible for inclusion in a market investable equity universe, a security must have a free float-adjusted market capitalization equal to or higher than 50% of the equity universe minimum size requirement.

DM and EM Minimum Liquidity *Requirement:* this investability screen is applied at the individual security level. To be eligible for inclusion in a market investable equity universe, a security must have adequate liquidity. The twelve-month and three-month Annual Traded Value Ratio ("ATVR"), a measure that screens out extreme daily trading volumes and takes into account the free float-adjusted market capitalization size of securities, together with the three-month frequency of trading are used to measure liquidity. In the calculation of the ATVR, the trading volumes in depository receipts associated with that security, such as ADRs or GDRs, are also considered. A minimum liquidity level of 20% of three- and twelve-month ATVR and 90% of three-month frequency of trading over the last four consecutive quarters are required for inclusion of a security in a market investable equity universe of a DM, and a minimum liquidity level of 15% of three- and twelve-month ATVR and 80% of three-month frequency of trading over the last four consecutive quarters are required for inclusion of a security in a market investable equity universe of an EM.

Global Minimum Foreign Inclusion Factor Requirement: this investability screen is applied at the individual security level. To be eligible for inclusion in a market investable equity universe, a security's Foreign Inclusion Factor ("FIF") must reach a certain threshold. The FIF of a security is defined as the proportion of shares outstanding that is available for purchase in the public equity markets by international investors. This proportion accounts for the available free float of and/or the foreign ownership limits applicable to a specific security (or company). In general, a security must have an FIF equal to or larger than 0.15 to be eligible for inclusion in a market investable equity universe.

Minimum Length of Trading Requirement: this investability screen is applied at the individual security level. For an initial public offering ("IPO") to be eligible for inclusion in a market investable equity universe, the new issue must have started trading at least three months before the implementation of a • semi-annual index review (as described below). This requirement is applicable to small new issues in all markets. Large IPOs are not subject to the minimum length of trading requirement and may be included in a market investable equity universe and the Standard Index outside of a Quarterly or Semi-Annual Index Review.

Defining Market Capitalization Size Segments for Each Market. Once a market investable equity universe is defined, it is segmented into the following size-based indices:

Investable Market Index (Large + Mid + Small);

• Standard Index (Large + Mid);

• Large Cap Index;

Mid Cap Index; or

.

•

Small Cap Index.

Creating the size segment indices in each market involves the following steps:

defining the market coverage • target range for each size segment;

determining the global minimum size range for each size segment;

determining the market size– · segment cutoffs and associated segment number of companies;

assigning companies to the size segments; and

applying final size–segment investability requirements.

Index Continuity Rules for the Standard Indices. In order to achieve index continuity, as well as to provide some basic level of diversification within a market index, and notwithstanding the effect of other index construction rules described in this section, a minimum number of five constituents will be maintained for a DM Standard Index and a minimum number of three constituents will be maintained for an EM Standard Index.

Creating Style Indices within Each Size Segment. All securities in the investable equity universe are classified into value or growth segments using the MSCI Global Value and Growth methodology.

Classifying Securities under the Global Industry Classification Standard. All securities in the global investable equity universe are assigned to the industry that best describes their business activities. To this end, MSCI has designed, in conjunction with Standard & Poor's, the GICS. Under the GICS, each company is assigned to one sub-industry according to its principal business activity. Therefore, a company can belong to only one industry grouping at each of the four levels of the GICS.

Calculation Methodology for the Underlying Index

The performance of the underlying index is a free-float weighted average of the U.S. dollar values of its component securities.

Prices used to calculate the component securities are the official exchange closing prices or prices accepted as such in the relevant market. In the case of a market closure, or if a security does not trade on a specific day or during a specific period, MSCI carries forward the previous day's price (or latest available closing price). In the event of a market outage resulting in any component security price to be unavailable, MSCI will generally use the last reported price for such component security for the purpose of performance

calculation unless MSCI determines that another price is more appropriate based on the circumstances. Closing prices are converted into U.S. dollars, as applicable, using the closing exchange rates calculated by WM/Reuters at 4:00PM London Time.

Index Maintenance

The MSCI Global Investable Market Indices are maintained with the objective of reflecting the evolution of the underlying equity markets and segments on a timely basis, while seeking to achieve index continuity, continuous investability of constituents and replicability of the indices, index stability and low index turnover. In particular, index maintenance involves:

Semi–Annual Index Reviews ("SAIRs") in May and November (i) of the Size Segment and Global Value and Growth Indices which include:

updating the indices on the basis • of a fully refreshed equity universe;

taking buffer rules into consideration for migration of securities across size and style segments; and

updating FIFs and Number of Shares ("NOS").

Quarterly Index Reviews in (ii) February and August of the Size Segment Indices aimed at:

including significant new eligible securities (such as IPOs that were not eligible for earlier inclusion) in the index;

allowing for significant moves of companies within the Size Segment Indices, using wider buffers than in the SAIR; and

reflecting the impact of • significant market events on FIFs and updating NOS.

> Ongoing Event–Related Changes: changes of this type are generally implemented in the indices as they occur.

(iii) the indices as they occur.
 Significantly large IPOs are included in the indices after the close of the company's tenth day of trading.

Through this maintenance process, MSCI may make structural changes to the indices by adding or deleting component country indices. Consequently, the composition of the Underlying Index may change over the term of the notes.

Neither we nor any of our affiliates, including BMOCM, accepts any responsibility for the calculation, maintenance, or publication of, or for any error, omission, or disruption in the Underlying Index, or any successor to the index. MSCI does not guarantee the accuracy or the completeness of the Underlying Index, or any data included in the index. MSCI assumes no liability for any

errors, omissions, or disruption in the calculation and dissemination of the Underlying Index. MSCI disclaims all responsibility for any errors or omissions in the calculation and dissemination of the Underlying Index, or the manner in which the index is applied in determining the amount payable on the notes at maturity.

Historical Performances of the Underlying Assets

The following tables set forth the quarter-end high and low closing levels for each Underlying Asset from the first quarter of 2008 through October 24, 2018.

The historical levels of the Underlying Assets are provided for informational purposes only. You should not take the historical levels of the applicable Underlying Asset as an indication of its future performance, which may be better or worse than the levels set forth below.

Closing Levels of the EURO STOXX 50[®] Index

		High	Low
2008	First Quarter	4,339.23	3,431.82
	Second Ouarter	3,882.28	3,340.27
	Third Ouarter	3,445.66	3,000.83
]	Fourth Quarter	3,113.82	2,165.91
2009	First Quarter	2,578.43	1,809.98
	Second Quarter	2,537.35	2,097.57
	Third Ouarter	2,899.12	2,281.47
	~~	2,992.08	2,712.30

Fourth Quarte	n er
2010 ^{First} Quarte	3,017.852,631.64
Secon Quarte	d 3,012.652,488.50
Third Ouarte	er 2,827.272,507.83
Fourth Quarte	2,890.642,650.99
2011 First Quarte	3,068.002,721.24
Secon Quarte	d 3,011.252,715.88
Third Quarte	er 2,875.671,995.01
Fourth Quarte	2,476.922,090.25
2012 ^{First} Quarte	2,608.422,286.45
Secon Quarte	d 2,501.182,068.66
Third Quarte	er 2,594.562,151.54
Fourth Quarte	2,659.952,427.32
2013 ^{First} Quarte	er 2,749.272,570.52
Secon Quarte	d 2,835.872,511.83
Third Quarte	2,936.202,570.76
Fourth Quarte	a,111.372,902.12
2014 ^{First} Quarte	3,172.432,962.49
Secon Quarte	d 3,314.803,091.52
Third Quarte	3,289.753,006.83
Fourth Quarte	a 3,277.382,874.65
2015 First	3,731.353,007.91
Qualit	3,828.783,424.30

	Second Quarter Third Quarter Fourth Quarter	3,686.583,019.34 3,506.453,069.05
2016	First Quarter	3,178.012,680.35
	Second Quarter	3,151.692,697.44
	Third Quarter	3,091.662,761.37
	Fourth Quarter	3,290.522,954.53
2017	First Quarter	3,500.933,230.68
	Second Quarter	3,658.793,409.78
	Third Quarter	3,594.853,388.22
	Fourth Quarter	3,697.403,503.96
2018	First Quarter	3,672.293,278.72
	Second Quarter	3,592.183,340.35
	Third Quarter	3,527.183,293.36
	Third Quarter (through October 24, 2018)	3,449.793,140.94

Closing Levels of the Russell 2000[®] Index

		High	Low
2008	First Quarter	753.548	643.966
	Second Quarter	763.266	686.073
	Third Quarter	754.377	657.718
	Fourth Quarter	671.590	385.308
2009	First Quarter	514.710	343.260
	Second Quarter	531.680	429.158
	Third Quarter	620.695	479.267
	Fourth Quarter	634.072	562.395
2010	First Quarter	690.303	586.491
	Second Quarter	741.922	609.486
	Third Quarter	677.642	590.034
	Fourth Quarter	792.347	669.450
201	First Quarter	843.549	773.184
	Second Quarter	865.291	777.197
	Third Quarter	858.113	643.421
	Fourth Quarter	765.432	609.490
2012	First Quarter	846.129	747.275
	Second Quarter	840.626	737.241
	Third Quarter	864.697	767.751
		852.495	769.483

	Fourth Quarter		
2013	First Quarter	953.068	872.605
	Second Quarter	999.985	901.513
	Third Quarter	1,078.409	989.535
	Fourth Quarter	1,163.637	1,043.459
2014	First Quarter	1,208.651	1,093.594
	Second Quarter	1,192.964	1,095.986
	Third Quarter	1,208.150	1,101.676
	Fourth Quarter	1,219.109	1,049.303
2015	First Quarter	1,266.373	1,154.709
	Second Quarter	1,295.799	1,215.417
	Third Quarter	1,273.328	1,083.907
	Fourth Quarter	1,204.159	1,097.552
2016	First Quarter Second Quarter Third Quarter	1,114.028	953.715
		1,188.954	1,089.646
		1,263.438	1,139.453
	Fourth Quarter	1,388.073	1,156.885
2017	First Quarter	1,413.635	1,345.598
S Q T Q F Q	Second Quarter	1,425.985	1,345.244
	Third Ouarter	1,490.861	1,356.905
	Fourth Quarter	1,548.926	1,464.095
2018	First	1,610.706	1,463.793
	Zumitri	1,706.985	1,492.531

Second Quarter Third Quarter Fourth Quarter (through October 24, 2018)

Closing Prices of the VanEck Vectors[®] Gold Miners ETF

		High	Low
		(in \$)	(in \$)
2008	First Quarter	56.29	46.50
	Quarter Quarter	51.40	42.38
	Third Quarter	50.84	27.95
	Fourth Quarter	33.96	16.38
2009	First Quarter	38.57	28.20
	Second Ouarter	44.55	30.95
	Third Ouarter	48.00	35.14
	Fourth Quarter	54.78	41.87
2010	First Quarter	50.17	40.22
	Second Ouarter	54.07	46.36
	Third Quarter	56.66	47.09
	Fourth Quarter	63.80	54.28
2011	First Quarter	60.79	53.12
	Second Quarter	63.95	51.80
	Third Quarter	66.69	53.75
	Fourth Quarter	63.32	50.07
2012	First Quarter	57.47	48.75
	Quarter	50.37	39.34
	Third Quarter	54.81	40.70
	Fourth Quarter	54.25	44.85
2013	First Quarter	47.09	35.91
	Second Quarter	37.45	22.22
	Third Quarter	30.43	22.90
	Fourth Quarter	26.52	20.39
2014	First Quarter	27.73	21.27
	Second Quarter	26.45	22.04
	Third Quarter	27.46	21.35

	Fourth Quarter	21.94	16.59
2015	First Quarter	22.94	17.67
	Second Quarter	20.82	17.76
	Third Quarter	17.85	13.04
	Fourth Quarter	16.90	13.08
2016	First Quarter	20.86	12.47
	Second Quarter	27.70	19.53
	Third Quarter	31.32	25.45
	Fourth Quarter	25.96	18.99
2017	First Quarter	25.57	21.14
	Second Ouarter	24.57	21.10
	Third Quarter	25.49	21.21
	Fourth Quarter	23.84	21.42
2018	First Quarter	24.60	21.27
	Second Quarter	23.06	21.81
	Third Quarter	22.68	17.57
	Fourth Quarter		
	(through October 24,	20.10	18.39
	2018)		

Closing Levels of the iShares® MSCI Emerging Markets ETF

High Low

		(\$)	(\$)
2008 First Quart	er	50.37	42.17
Second Qu	arter	51.70	44.43
Third Quar	rter	44.43	31.33
Fourth Qua	arter	33.90	18.22
2000 E'		27.00	10.04
2009 First Quart	er	21.09	19.94
Second Qu	arter	34.04	25.65
Third Quai	rter	39.29	30.75
Fourth Qua	arter	42.07	37.56
2010First Quart	er	43.22	36.83
Second Qu	arter	43.98	36.16
Third Quar	rter	44.77	37.59
Fourth Qua	arter	48.58	44.77
		10.00	
2011 First Quart	er	48.69	44.63
Second Qu	arter	50.21	45.50
Third Quai	rter	48.46	34.95
Fourth Qua	arter	42.80	34.36
2012First Quart	er	44.76	38.23
Second Qu	arter	43.54	36.68
Third Quar	rter	42.37	37.42
Fourth Qua	arter	44.35	40.14
2012 Einst Outout		45 20	11 00
2013 First Quart	.CI	43.20	41.00
Third Open		44.25	27.24
Third Qual		43.29	37.34
Fourth Qua	arter	43.00	40.44
2014 First Quart	er	40.99	37.09
Second Qu	arter	43.95	40.82
Third Quar	rter	45.85	41.56
Fourth Qua	arter	42.44	37.73
2015 First Quart	er	41 07	37 92
Second Ou	.ərter	44 09	39.04
Third Oua	rter	39.78	31 32
Fourth Our	arter	36.70	31.52
	anter	50.29	51.55

2016First Quarter 34.28 28.25 Second Quarter 35.26 31.87 Third Quarter 38.20 33.77 Fourth Quarter 38.10 34.08

2017First Quarter 39.99 35.43 Second Quarter 41.93 38.81 Third Quarter 45.85 41.05 Fourth Quarter 47.81 44.82

2018 First Quarter 52.08 45.69 Second Quarter 48.14 42.33 Third Quarter 45.03 41.14 Fourth Quarter (through October 24, 2018) 42.93 39.14