ROYAL BANK OF CANADA
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ISSUER FREE WRITING PROSPECTUS
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Royal Bank of Canada Trigger Autocallable Contingent Yield Notes

$[·] Notes Linked to the Least Performing Underlying Between the S&P 500® Index and the Russell 2000® Index due on or about July 30, 2020

Investment Description

Trigger Autocallable Contingent Yield Notes (the "Notes") are unsecured and unsubordinated debt securities issued by Royal Bank of Canada linked to the performance of the least performing of the S&P 500® Index and the Russell 2000® Index (each, an "Underlying Index," and together, the "Underlying Indices"). We will pay a quarterly Contingent Coupon payment if the closing levels of both Underlying Indices on the applicable Coupon Observation Date are equal to or greater than their respective Coupon Barriers. Otherwise, no coupon will be paid for that quarter. We will automatically call the Notes early if the closing levels of both Underlying Indices on any quarterly Call Observation Date (beginning after six months) are equal to or greater than their respective Initial Levels. If the Notes are called, we will pay you the principal amount of your Notes plus the Contingent Coupon for the applicable quarter, and no further amounts will be owed to you under the Notes. If the Notes are not called prior to maturity and the Final Levels of both Underlying Indices are equal to or greater than their respective Downside Thresholds (which are the same levels as their respective Coupon Barriers), we will pay you a cash payment at maturity equal to the principal amount of your Notes plus the Contingent Coupon for the final quarter. However, if the Final Level of the Underlying Index with the lowest percentage change from its Initial Level (the "Least Performing Underlying Index") is less than its Downside Threshold, we will pay you less than the full principal amount, if anything, resulting in a loss on your initial investment that is proportionate to the negative performance of the Least Performing Underlying Index over the term of the Notes, and you may lose up to 100% of your initial investment.

Investing in the Notes involves significant risks. You will not receive a coupon for any Coupon Observation Date on which either Underlying Index closes below its Coupon Barrier. The Notes will not be automatically called if either Underlying Index closes below its Initial Level on a quarterly Call Observation Date. You may lose some or all of your principal amount if the Least Performing Underlying Index closes below its Downside Threshold, regardless of the performance of the other Underlying Index. The contingent repayment of principal only applies if you hold the Notes until maturity. Generally, the higher the Contingent Coupon Rate on a security, the greater the risk of loss. Any payment on the Notes, including any repayment of principal, is subject to our creditworthiness. If we were to default on our payment obligations, you may not receive any amounts owed to you under the Notes and you could lose your entire investment. The Notes will not be listed on any securities exchange.

Features Key Dates[1]

q Contingent Coupon — We will pay a quarterly Contingent Coupon payment if the closing levels of both Underlying Indices on the applicable Coupon Observation Date are equal to or greater than their respective Coupon Barriers. Otherwise, no coupon will be paid for the quarter.

q Automatically Callable — We will automatically call the Notes and pay you the principal amount of your Notes plus the Contingent Coupon otherwise due for the applicable quarter if the closing levels of both Underlying Indices on any quarterly Call Observation Date (beginning after six months) are equal to or greater than their respective Initial Levels. If the Notes are not called, investors will have the potential for downside equity market risk at maturity.

q Contingent Repayment of Principal at Maturity — If by maturity the Notes have not been called and each Underlying Index does not close below its Downside Threshold on the Final Valuation Date, we will repay your principal amount per Note at maturity. However, if the closing level of the Least Performing Underlying Index is less than its Downside Threshold on the Final Valuation Date, we will pay less than the principal amount, if anything, resulting in a loss on your initial investment that is proportionate to the decline in the level of the Least Performing

Underlying Index from the trade date to the Final Valuation Date. The contingent repayment of principal only applies if you hold the Notes until maturity. Any payment on the Notes, including any repayment of principal, is subject to our creditworthiness.

Trade Date[1] July 27, 2017
Settlement Date[1] July 31, 2017
Coupon Observation Dates[2] Quarterly (see page 6)
Call Observation Dates[2] Quarterly (beginning after six months) (see page 6)
Final Valuation Date[2] July 27, 2020
Maturity Date[2] July 30, 2020

1 Expected. In the event that we make any change to the expected trade date and settlement date, the Coupon Observation Dates, the Call Observation Dates, the Final Valuation Date and/or the Maturity Date will be changed so that the stated term of the Notes remains approximately the same.

2 Subject to postponement if a market disruption event occurs, as described under "General Terms of the Notes—Payment at Maturity" below.

NOTICE TO INVESTORS: THE NOTES ARE SIGNIFICANTLY RISKIER THAN CONVENTIONAL DEBT INSTRUMENTS. WE ARE NOT NECESSARILY OBLIGATED TO REPAY THE FULL PRINCIPAL AMOUNT OF THE NOTES AT MATURITY, AND THE NOTES CAN HAVE DOWNSIDE MARKET RISK SIMILAR TO THE LEAST PERFORMING UNDERLYING INDEX. THIS MARKET RISK IS IN ADDITION TO THE CREDIT RISK INHERENT IN PURCHASING A DEBT OBLIGATION OF ROYAL BANK OF CANADA. YOU SHOULD NOT PURCHASE THE NOTES IF YOU DO NOT UNDERSTAND OR ARE NOT COMFORTABLE WITH THE SIGNIFICANT RISKS INVOLVED IN INVESTING IN THE NOTES.
YOU SHOULD CAREFULLY CONSIDER THE RISKS DESCRIBED UNDER "KEY RISKS" BEGINNING ON PAGE 7 OF THIS FREE WRITING PROSPECTUS AND UNDER "RISK FACTORS" BEGINNING ON PAGE S-1 OF THE PROSPECTUS SUPPLEMENT BEFORE PURCHASING ANY NOTES. EVENTS RELATING TO ANY OF THOSE RISKS, OR OTHER RISKS AND UNCERTAINTIES, COULD ADVERSELY AFFECT THE MARKET VALUE OF, AND THE RETURN ON, YOUR NOTES. YOU MAY LOSE SOME OR ALL OF THE PRINCIPAL AMOUNT OF THE NOTES.

Note Offering

This free writing prospectus relates to Trigger Autocallable Contingent Yield Notes we are offering. The Notes are linked to the least performing underlying between the S&P 500® Index and the Russell 2000® Index. The Contingent Coupon Rate, Initial Levels, Downside Thresholds and Coupon Barriers for the Notes will be determined on the trade date. The Notes are offered at a minimum investment of 100 Notes at $10.00 per Note (representing a $1,000 investment), and integral multiples of $10.00 in excess thereof.

Underlying Indices (Least Performing of)	Tickers	Contingent Coupon Rate	Initial Levels	Downside Thresholds	Coupon Barriers	CUSIP	ISIN
S&P 500® Index (SPX)	SPX	[7.00% to 8.00%] per annum	.	70% of its Initial Level	70% of its Initial Level	78013F172	US78013F1729
Russell 2000® Index (RTY)	RTY		.	70% of its Initial Level	70% of its Initial Level		

See "Additional Information About Royal Bank of Canada and the Notes" in this free writing prospectus. The Notes will have the terms specified in the prospectus dated January 8, 2016, the prospectus supplement dated January 8, 2016 and this free writing prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of the Notes or passed upon the accuracy or the adequacy of this free writing prospectus or the accompanying prospectus and prospectus supplement. Any representation to the contrary is a criminal offense.

	Price to Public		Fees and Commissions[(1)]		Proceeds to Us	
Offering of the Notes	Total	Per Note	Total	Per Note	Total	Per Note
Notes linked to the Least Performing Underlying Between the S&P 500® Index and the Russell 2000® Index	•	$10.00	•	$0.00	•	$10.00

(1) All sales of the Notes will be made to certain fee-based advisory accounts for which UBS Financial Services Inc., which we refer to as UBS, is an investment advisor and UBS will act as placement agent. The purchase price will be $10.00 per Note and UBS will forgo any commissions related to these sales. See "Supplemental Plan of Distribution (Conflicts of Interest)" on page 31 of this free writing prospectus.

The initial estimated value of the Notes as of the date of this document is $9.9064 per $10 in principal amount, which is less than the price to public. The pricing supplement relating to the Notes will set forth our estimate of the initial value of the Notes as of the trade date, which will not be more than $0.20 less than this amount. The actual value of the Notes at any time will reflect many factors, cannot be predicted with accuracy, and may be less than this amount. We describe our determination of the initial estimated value under "Key Risks" beginning on page 7, "Supplemental Plan of Distribution (Conflicts of Interest)" on page 30 and "Structuring the Notes" on page 30 of this free writing prospectus.

The Notes will not constitute deposits insured under the Canada Deposit Insurance Corporation Act or by the United States Federal Deposit Insurance Corporation or any other Canadian or United States government agency or instrumentality.

UBS Financial Services Inc. RBC Capital Markets, LLC

Additional Information About Royal Bank of Canada and the Notes

Royal Bank of Canada has filed a registration statement (including a prospectus) with the Securities and Exchange Commission, or SEC, for the offering to which this free writing prospectus relates. Before you invest, you should read the prospectus in that registration statement and the other documents relating to this offering that Royal Bank of Canada has filed with the SEC for more complete information about Royal Bank of Canada and this offering. You may obtain these documents without cost by visiting EDGAR on the SEC website at www.sec.gov. Alternatively, Royal Bank of Canada, any agent or any dealer participating in this offering will arrange to send you the prospectus, the prospectus supplement, and this free writing prospectus if you so request by calling toll-free 866-609-6009.

You may revoke your offer to purchase the Notes at any time prior to the time at which we accept such offer by notifying the applicable agent. We reserve the right to change the terms of, or reject any offer to purchase, the Notes prior to their issuance. In the event of any changes to the terms of the Notes, we 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 we may reject your offer to purchase.

You should read this free writing prospectus together with the prospectus dated January 8, 2016, as supplemented by the prospectus supplement dated January 8, 2016, relating to our senior global medium-term notes, Series G, of which these Notes are a part. This free writing prospectus, together with the documents listed below, contains the terms of the Notes and supersedes all other prior or contemporaneous oral statements as well as any other written materials including preliminary or indicative pricing terms, correspondence, trade ideas, structures for implementation, sample structures, fact sheets, brochures or other educational materials of ours. You should carefully consider, among other things, the matters set forth in “Key Risks” below, as the Notes involve risks not associated with conventional debt securities.

If the terms of the prospectus and prospectus supplement are inconsistent with the terms discussed herein, the terms discussed in this free writing prospectus will control.

You may access these on the SEC website at www.sec.gov as follows (or if such address has changed, by reviewing our filing for the relevant date on the SEC website):

¨Prospectus supplement dated January 8, 2016:
http://www.sec.gov/Archives/edgar/data/1000275/000121465916008811/p14150424b3.htm

¨Prospectus dated January 8, 2016:
http://www.sec.gov/Archives/edgar/data/1000275/000121465916008810/j18160424b3.htm

As used in this free writing prospectus, “we,” “us” or “our” refers to Royal Bank of Canada.

Investor Suitability

The Notes may be suitable for you if, among other considerations:

- You fully understand the risks inherent in an investment in the Notes, including the risk of loss of your entire initial investment.
- You can tolerate a loss of all or a substantial portion of your investment and are willing to make an investment that may have the same downside market risk as an investment in the securities composing the Least Performing Underlying Index.
- You believe the closing levels of both Underlying Indices will be equal to or greater than their respective Coupon Barriers on most or all of the Coupon Observation Dates (including the Final Valuation Date).
- You are willing to make an investment whose return is limited to the applicable Contingent Coupon payments, regardless of any potential appreciation of the Underlying Indices, which could be significant.
- You do not seek guaranteed current income from this investment and are willing to forgo the dividends paid on the equity securities composing the Underlying Indices.
- You can tolerate fluctuations in the price of the Notes prior to maturity that may be similar to or exceed the downside fluctuations of the Underlying Indices.
- You are willing to invest in Notes for which there may be little or no secondary market, and you accept that the secondary market will depend in large part on the price, if any, at which RBC Capital Markets, LLC, which we refer to as "RBCCM," is willing to purchase the Notes.
- You would be willing to invest in the Notes if the Contingent Coupon Rate was set to the bottom of the range indicated on the cover page of this free writing prospectus (the actual Contingent Coupon Rate will be determined on the trade date).
- You are willing to accept individual exposure to each Underlying Index and that the performance of the Least Performing Underlying Index will not be offset or mitigated by the performance of the other Underlying Index.
- You understand and accept the risks associated with the Underlying Indices.
- You are willing to invest in securities that may be called early and you are otherwise willing to hold such securities to maturity.
- You are willing to assume our credit risk for all payments under the Notes, and understand that if we default on our obligations, you may not receive any amounts due to you, including any repayment of principal.

The Notes may not be suitable for you if, among other considerations:

- You do not fully understand the risks inherent in an investment in the Notes, including the risk of loss of your entire initial investment.
- You cannot tolerate a loss on your investment and require an investment designed to provide a full return of principal at maturity.
- You are not willing to make an investment that may have the same downside market risk as an investment in the equity securities composing the Least Performing Underlying Index.
- You believe that the level of either Underlying Index will decline during the term of the Notes and is likely to close below its Coupon Barrier on most or all of the Coupon Observation Dates and below its Downside Threshold on the Final Valuation Date.
- You seek an investment that participates in the full appreciation in the levels of the Underlying Indices or that has unlimited return potential.
- You cannot tolerate fluctuations in the price of the Notes prior to maturity that may be similar to or exceed the downside fluctuations of the Least Performing Underlying Index.
- You would be unwilling to invest in the Notes if the Contingent Coupon Rate was set to the bottom of the range indicated on the cover page of this free writing prospectus (the actual Contingent Coupon Rate will be determined on the trade date).
- You are unwilling to accept individual exposure to each Underlying Index and that the performance of the Least Performing Underlying Index will not be offset or mitigated by the performance of the other Underlying Index.
- You seek guaranteed current income from this investment or prefer to receive the dividends paid on the securities composing the Underlying Indices.
- You do not understand or accept the risks associated with the Underlying Indices.

¨ You are unable or unwilling to hold securities that may be called early, or you are otherwise unable or unwilling to hold such securities to maturity, or you seek an investment for which there will be an active secondary market for the Notes.
¨ You are not willing to assume our credit risk for all payments under the Notes, including any repayment of principal.

The suitability considerations identified above are not exhaustive. Whether or not the Notes are a suitable investment for you will depend on your individual circumstances, and you should reach an investment decision only after you and your investment, legal, tax, accounting, and other advisers have carefully considered the suitability of an investment in the Notes in light of your particular circumstances. You should also review carefully the “Key Risks” beginning on page 6 of this free writing prospectus for risks related to an investment in the Notes. In addition, you should review carefully the section below, “Information About the Underlying Indices,” for more information about these indices.

Indicative Terms of the Notes[1]

Issuer:	Royal Bank of Canada
Principal Amount per Note:	$10.00 per Note (subject to a minimum purchase of 100 Notes ($1,000))
Term:[2]	Approximately three years unless earlier called
Underlying Indices:	The S&P 500® Index ("SPX") and the Russell 2000® Index ("RTY")
Contingent Coupon:	If the closing levels of both Underlying Indices are equal to or greater than their respective Coupon Barriers on any Coupon Observation Date, we will pay you the Contingent Coupon applicable to that Coupon Observation Date. If the closing level of either Underlying Index is less than its Coupon Barrier on any Coupon Observation Date, the Contingent Coupon applicable to that Coupon Observation Date will not accrue or be payable, and we will not make any payment to you on the relevant Coupon Payment Date. The Contingent Coupon will be a fixed amount of equal quarterly installments at the Contingent Coupon Rate, which is [7.00% to 8.00%] per annum (or [$0.175 to $0.20] per quarter for each $10.00 principal amount Note), to be determined on the trade date.

Contingent Coupon payments on the Notes are not guaranteed. We will not pay you the Contingent Coupon for any Coupon Observation Date on which the closing level of either Underlying Index is less than its Coupon Barrier.

Contingent Coupon Rate:	The Contingent Coupon Rate is expected to be between 7.00% and 8.00% per annum. The actual Contingent Coupon Rate will be determined on the trade date.
Coupon Payment Dates:	Two business days following each Coupon Observation Date (as set forth on page 6), except that the Coupon Payment Date for the Final Valuation Date is the Maturity Date.
Automatic Call Feature:	The Notes will be called automatically if the closing level of both Underlying Indices on any quarterly Call Observation Date (beginning after six months and set forth on page 6) are equal to or greater than their respective Initial Levels. If the Notes are called on any Call Observation Date, we will pay you on the corresponding Coupon Payment Date (which will be the "Call Settlement Date") a cash payment per Note equal to your principal amount plus the Contingent Coupon otherwise due on that day under the Contingent Coupon feature. No further amounts will be owed to you under the Notes.

[1] Terms used in this free writing prospectus, but not defined herein, shall have the meanings ascribed to them in the prospectus or the prospectus supplement.
[2] In the event we make any change to the expected trade date and settlement date, the Coupon Observation Dates, the Call Observation Dates, the Coupon Payment Dates, the Call Settlement Dates, the Final Valuation Date and/or the Maturity Date will be changed to ensure that the stated term of the Notes remains approximately the same.

Payment at Maturity:	If the Notes are not called and the closing levels of both Underlying Indices are equal to or greater than their respective Downside Thresholds, we will pay you a cash payment per Note on the Maturity Date equal to $10.00 plus the Contingent Coupon otherwise due on the Maturity Date. If the Notes are not called and the Final Level of the Least Performing Underlying Index is less than its Downside Threshold, we will pay you a cash payment on the Maturity Date of less than the principal amount, if anything, resulting in a loss on your initial investment that is proportionate to the

	negative Underlying Index Return of the Least Performing Underlying Index, equal to: $10.00 + ($10.00 × Underlying Index Return of the Least Performing Underlying Index)
Least Performing Underlying Index:	The Underlying Index with the lowest Underlying Index Return.
Underlying Index Returns:	With respect to each Underlying Index, $\frac{\text{Final Level – Initial Level}}{\text{Initial Level}}$
Downside Thresholds:	With respect to each Underlying Index, 70.00% of its Initial Level.
Coupon Barriers:	With respect to each Underlying Index, 70.00% of its Initial Level.
Initial Levels:	With respect to each Underlying Index, its closing level on the trade date.
Final Levels:	With respect to each Underlying Index, its closing level on the Final Valuation Date, as determined by the calculation agent.

Investment Timeline

Trade Date:	The Initial Level, Downside Threshold and Coupon Barrier of each Underlying Index are determined. The Contingent Coupon Rate is set.
Quarterly (beginning after six months):	If the closing levels of both Underlying Indices are equal to or greater than their respective Coupon Barriers on any Coupon Observation Date, we will pay you a Contingent Coupon payment on the applicable Coupon Payment Date. The Notes will be called if the closing levels of both Underlying Indices on any quarterly Call Observation Date (beginning after six months) are equal to or greater than their respective Initial Levels. If the Notes are called, we will pay you a cash payment per Note equal to $10.00 plus the Contingent Coupon otherwise due on that date.
Maturity Date:	The Final Level of each Underlying Index is observed on the Final Valuation Date. If the Notes have not been called and the Final Levels of both Underlying Indices are equal to or greater than their respective Downside Thresholds (and their respective Coupon Barriers), we will repay the principal amount equal to $10.00 per Note plus the Contingent Coupon otherwise due on the Maturity Date. If the Notes have not been called and the Final Level of the Least Performing Underlying Index is less than its Downside Threshold, we will pay less than the principal amount, if anything, resulting in a loss on your initial investment proportionate to the decline of the Least Performing Underlying Index, for an amount equal to: $10.00 + ($10.00 × Underlying Index Return of the Least Performing Underlying Index) per Note

INVESTING IN THE NOTES INVOLVES SIGNIFICANT RISKS. YOU MAY LOSE SOME OR ALL OF YOUR PRINCIPAL AMOUNT. YOU WILL BE EXPOSED TO THE MARKET RISK OF EACH UNDERLYING INDEX ON EACH COUPON OBSERVATION DATE AND ON THE FINAL VALUATION DATE, AND ANY DECLINE IN THE LEVEL OF ONE UNDERLYING INDEX MAY NEGATIVELY AFFECT YOUR RETURN AND WILL NOT BE OFFSET OR MITIGATED BY A LESSER DECLINE OR ANY POTENTIAL INCREASE IN THE LEVEL OF THE OTHER UNDERLYING INDEX. ANY PAYMENT ON THE NOTES, INCLUDING ANY REPAYMENT OF PRINCIPAL, IS SUBJECT TO OUR CREDITWORTHINESS. IF WE WERE TO DEFAULT ON OUR PAYMENT OBLIGATIONS, YOU MAY NOT RECEIVE ANY AMOUNTS OWED TO YOU UNDER THE NOTES AND YOU COULD LOSE YOUR ENTIRE INVESTMENT.

Coupon Observation Dates and Coupon Payment Dates*

Coupon Observation Dates	Coupon Payment Dates
October 27, 2017	October 31, 2017
January 29, 2018(1)	January 31, 2018(2)
April 27, 2018(1)	May 1, 2018(2)
July 27, 2018(1)	July 31, 2018(2)
October 29, 2018(1)	October 31, 2018(2)
January 28, 2019(1)	January 30, 2019(2)
April 29, 2019(1)	May 1, 2019(2)
July 29, 2019(1)	July 31, 2019(2)
October 28, 2019(1)	October 30, 2019(2)
January 27, 2020(1)	January 29, 2020(2)
April 27, 2020(1)	April 29, 2020(2)
July 27, 2020(1)(3)	July 30, 2020(2)(4)

(1) These Coupon Observation Dates are also Call Observation Dates.
(2) These Coupon Payment Dates are also Call Settlement Dates.
(3) This is also the Final Valuation Date.
(4) This is also the Maturity Date.
* Expected. Subject to the market disruption event provisions set forth below under “General Terms of the Notes—Market Disruption Events.”

Key Risks

An investment in the Notes is subject to the risks described below, as well as the risks described under "Risk Factors" in the prospectus and the prospectus supplement. The return on the Notes is linked to the performance of the Underlying Indices. The Notes do not guarantee any return of principal at, or prior to, maturity. Investing in the Notes is not equivalent to investing directly in the securities composing the Underlying Indices. In addition, your investment in the Notes entails other risks not associated with an investment in conventional debt securities. You should consider carefully the following discussion of risks before you decide that an investment in the Notes is suitable for you.

Risks Relating to the Notes Generally

- Your investment in the Notes may result in a loss. The Notes do not guarantee any return of principal. The amount payable to you at maturity, if any, will be determined as described in this free writing prospectus. The return on the Notes at maturity will depend on whether the Notes are called on any Call Observation Date, or if the Notes are not called, the extent to which the Final Level of the Least Performing Underlying Index is less than its Downside Threshold. If the Notes are not called and the Final Level of the Least Performing Underlying Index is below its Downside Threshold on the Final Valuation Date, you will lose 1% (or a fraction thereof) of the principal amount for every 1% (or a fraction thereof) decrease in the level of the Least Performing Underlying Index below its Initial Level. Accordingly, you may lose the entire principal amount of your Notes.
- The Notes are subject to our credit risk. The Notes are subject to our credit risk, and our credit ratings and credit spreads may adversely affect the market value of the Notes. Investors are dependent on our ability to pay all amounts due on the Notes, and therefore investors are subject to our credit risk and to changes in the market's view of our creditworthiness. Any decline in our credit ratings or increase in the credit spreads charged by the market for taking our credit risk is likely to adversely affect the value of the Notes. If we were to default on our payment obligations, you may not receive any amounts owed to you under the Notes and you could lose your entire investment.
- You may not receive any Contingent Coupons with respect to your Notes. Royal Bank of Canada will not necessarily make periodic coupon payments on the Notes. If the closing level of either Underlying Index on a Coupon Observation Date is less than its Coupon Barrier, we will not pay you the Contingent Coupon applicable to that Coupon Observation Date. If either Underlying Index is less than its Coupon Barrier on each of the Coupon Observation Dates, we will not pay you any Contingent Coupons during the term of, and you will not receive a positive return on, your Notes. Generally, this non-payment of the Contingent Coupon on the Final Valuation Date will coincide with a greater risk of principal loss on your Notes. Accordingly, if we do not pay the Contingent Coupon on the Maturity Date, you will incur a loss of principal, because the Final Level of the Least Performing Underlying Index will be less than its Downside Threshold.
- You will not participate in any appreciation of the Underlying Indices, and any potential return on the Notes is limited. The return on the Notes is limited to the pre-specified Contingent Coupon Rate, regardless of the appreciation of the Underlying Indices. As a result, the return on an investment in the Notes could be less than the return on a direct investment in the Underlying Indices. In addition, the total return on the Notes will vary based on the number of Coupon Observation Dates on which the Contingent Coupon becomes payable prior to maturity or an automatic call. Further, if the Notes are called due to the automatic call feature, you will not receive any Contingent Coupons or any other payment in respect of any Coupon Observation Dates after the applicable Call Settlement Date. Since the Notes could be called as early as the second Coupon Observation Date, the total return on the Notes could be minimal. On the other hand, if the Notes have not been previously called and if the level of an Underlying Index is less than its Initial Level, as the Maturity Date approaches and the remaining number of Coupon Observation Dates decreases, the Notes are less likely to be automatically called, as there will be a shorter period of time remaining for the level of that Underlying Index to increase to its Initial Level. If the Notes are not called, you will be subject to the Underlying Indices' risk of decline.
- If you sell the Notes prior to maturity, you may receive less than the principal amount. If the Notes are not automatically called, you should be willing to hold the Notes until maturity. If you are able to sell the Notes in the secondary market prior to maturity, you may have to sell them for a loss relative to the principal amount, even if the levels of the Underlying Indices are above their respective Downside Thresholds. In addition, you will not receive the benefit of any contingent repayment of principal associated with the Downside Thresholds if you sell the Notes before the Maturity Date. The potential returns described in this document assume that

the Notes, which are not designed to be short-term trading instruments, are held to maturity.

¨ The Notes may be called early and are subject to reinvestment risk. If the Notes are called early, the term of the Notes will be reduced and you will not receive any payment on the Notes after the applicable Call Settlement Date. There is no guarantee that you would be able to reinvest the proceeds from an automatic call of the Notes 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 Notes; you may incur transaction costs such as dealer discounts and hedging costs built into the price of the new securities. The Notes may be called as early as the second Coupon Observation Date.

¨ The Contingent Coupon Rate will reflect in part the volatility of the Underlying Indices and may not be sufficient to compensate you for the risk of loss at maturity. "Volatility" refers to the frequency and magnitude of changes in the levels of the Underlying Indices. The greater the volatility of the Underlying Indices, the more likely it is that the level of either Underlying Index could close below its Downside Threshold on the Final Valuation Date. This risk will generally be reflected in a higher Contingent Coupon Rate for the Notes than the interest rate payable on our conventional debt securities with a comparable term. In addition, lower correlation between the Underlying Indices can also indicate a greater likelihood of one Underlying Index closing below its Coupon Barrier or Downside Threshold on a Coupon Observation Date or Final Valuation Date. This greater risk will also be reflected in a higher Contingent Coupon Rate than on a security linked to Underlying Indices with a greater degree of correlation. However, while the Contingent Coupon will be a fixed amount, the Underlying Indices' volatility and correlation can change significantly over the term of the Notes. The levels of one or both of the Underlying Indices could fall sharply as of the Final Valuation Date, which could result in missed Contingent Coupon payments and a significant loss of your principal amount.

¨ Your return on the Notes may be lower than the return on a conventional debt security of comparable maturity. The return that you will receive on the Notes, which could be negative, may be less than the return you could earn on other investments. Your investment may not reflect the full opportunity cost to you when you take into account factors that affect the time value of money, such as inflation.

¨ The initial estimated value of the Notes will be less than the price to the public. The initial estimated value that is set forth on the cover page of this document, and that will be set forth in the final pricing supplement for the Notes, will be less than the public offering price you pay for the Notes, does not represent a minimum price at which we, RBCCM or any of our other affiliates would be willing to purchase the Notes in any secondary market (if any exists) at any time. If you attempt to sell the Notes prior to maturity, their market value may be lower than the price you paid for them and the initial estimated value. This is due to, among other things, changes in the levels of the Underlying Indices, the borrowing rate we pay to issue securities of this kind, and the inclusion in the price to the public of our estimated profit and the costs relating to our hedging of the Notes. These factors, together with various credit, market and economic factors over the term of the Notes, are expected to reduce the price at which you may be able to sell the Notes in any secondary market and will affect the value of the Notes in complex and unpredictable ways. Assuming no change in market conditions or any other relevant factors, the price, if any, at which you may be able to sell your Notes prior to maturity may be less than the price to public, as any such sale price would not be expected to include our estimated profit and the costs relating to our hedging of the Notes. In addition, any price at which you may sell the Notes is likely to reflect customary bid-ask spreads for similar trades. In addition to bid-ask spreads, the value of the Notes determined for any secondary market price is expected to be based on a secondary market rate rather than the internal borrowing rate used to price the Notes and determine the initial estimated value. As a result, the secondary price will be less than if the internal borrowing rate was used. The Notes are not designed to be short-term trading instruments. Accordingly, you should be able and willing to hold your Notes to maturity.

¨ Our initial estimated value of the Notes is an estimate only, calculated as of the time the terms of the Notes are set. The initial estimated value of the Notes is based on the value of our obligation to make the payments on the Notes, together with the mid-market value of the derivative embedded in the terms of the Notes. See "Structuring the Notes" below. Our estimate is based on a variety of assumptions, including our credit spreads, expectations as to dividends, interest rates and volatility, and the expected term of the Notes. These assumptions are based on certain forecasts about future events, which may prove to be incorrect. Other entities may value the Notes or similar securities at a price that is significantly different than we do.

The value of the Notes at any time after the trade date will vary based on many factors, including changes in market conditions, and cannot be predicted with accuracy. As a result, the actual value you would receive if you sold the Notes in any secondary market, if any, should be expected to differ materially from the initial estimated value of your Notes and the amount that may be paid on the Notes.

¨ Your return on the Notes will not reflect dividends on the equity securities composing the Underlying Indices. The return on the Notes will not reflect the return you would realize if you actually owned the equity securities composing the Underlying Indices and received the dividends paid on those equity securities. The Final Levels of both Underlying Indices and the determination of the amount to be paid at maturity or upon an automatic call will not take into consideration the value of those dividends.

¨ If the levels of the Underlying Indices change, the market value of the Notes may not change in the same manner. Owning the Notes is not the same as owning the securities composing the Underlying Indices. Accordingly, changes in the levels of the Underlying Indices may not result in a comparable change of the market value of the Notes. If the levels of the Underlying Indices on any trading day increase above their respective Initial Levels or Coupon Barriers, the value of the Notes may not increase in a comparable manner, if at all. It is possible for the levels of the Underlying Indices to increase while the value of the Notes declines.

¨ The determination of the payments on the Notes, and whether they are subject to an automatic call, does not take into account all developments in the levels of the Underlying Indices. Changes in the levels of the Underlying Indices during the periods between each Coupon Observation Date may not be reflected in the determination as to whether the Contingent Coupon is payable to you on any Coupon Payment Date or whether the Notes are subject to an automatic call, or the calculation of the amount payable, if any, at maturity. The calculation agent will determine whether (i) the Contingent Coupon is payable to you on any quarterly Coupon Payment Date or (ii) the Notes are automatically called on any quarterly Call Observation Date by observing only the closing levels of the Underlying Indices on each Coupon Observation Date. The calculation agent will calculate the payment at maturity by comparing only the closing level of the Least Performing Underlying Index on the Final Valuation Date relative to its Initial Level. No other levels will be taken into account. As a result, you may lose some or all of your principal amount even if the level of the Least Performing Underlying Index has risen at certain times during the term of the

Notes before falling to a level below its Downside Threshold on the Final Valuation Date.

- The Notes are not designed to be short-term trading instruments. The price at which you will be able to sell the Notes to us or our affiliates prior to maturity, if at all, may be at a substantial discount from the principal amount of the Notes, even in cases where the closing levels of the Underlying Indices have appreciated since the trade date. In addition, you will not receive the benefit of any contingent repayment of principal associated with the Downside Thresholds if you sell the Notes before the Maturity Date. The potential returns described in this document assume that the Notes, which are not designed to be short-term trading instruments, are held to maturity.
- You must rely on your own evaluation of the merits of an investment linked to the Underlying Indices. In the ordinary course of their business, our affiliates, or UBS or its affiliates, may have expressed views on expected movements in each of the Underlying Indices or the securities included in the Underlying Indices, and may do so in the future. These views or reports may be communicated to our respective clients and clients of our respective affiliates. However, these views are subject to change from time to time. Moreover, other professionals who transact business in markets relating to either Underlying Index, may at any time have significantly different views from those of ours, and those of UBS and its affiliates. For these reasons, you are encouraged to derive information concerning the Underlying Indices from multiple sources, and you should not rely solely on views expressed by us, UBS, or our respective affiliates.
- Your return on the Notes is not linked to a basket consisting of the Underlying Indices. Rather, it will be contingent upon the performance of each individual Underlying Index. Unlike an instrument with a return linked to a basket of indices or other underlying assets, in which risk is mitigated and diversified among all of the components of the basket, you will be exposed equally to the risks related to both of the Underlying Indices. Poor performance by either one of the Underlying Indices over the term of the Notes may negatively affect your return and will not be offset or mitigated by a positive performance by the other Underlying Index. For the Notes to be automatically called or to receive any Contingent Coupon payment or contingent repayment of principal at maturity from us, both Underlying Indices must close above their Initial Levels, Coupon Barriers and Downside Thresholds, respectively, on the applicable Coupon Observation Date. In addition, if not called prior to maturity, you may incur a loss proportionate to the negative return of the Least

Performing Underlying Index. Accordingly, your investment is subject to the market risk of each Underlying Index, which results in a higher risk of your not receiving Contingent Coupon payments and incurring a loss at maturity.

- Because the Notes are linked to the individual performance of more than one Underlying Index, it is more likely that one of the Underlying Indices will decrease in value below its Coupon Barrier and its Downside Threshold, increasing the probability that you will not receive the Contingent Coupons and that you will lose some or all of your initial investment. The risk that you will not receive the Contingent Coupons and that you will lose some or all of your initial investment in the Notes is greater if you invest in the Notes as opposed to securities that are linked to the performance of a single Underlying Index if their terms are otherwise substantially similar. With a greater total number of Underlying Indices, it is more likely that an Underlying Index will be below its Coupon Barrier or Downside Threshold on a Coupon Observation Date or the Final Valuation Date, and therefore it is more likely that you will not receive the Contingent Coupons and that at maturity you will receive an amount in cash which is worth less than your principal amount. In addition, the performances of a pair of Underlying Indices may be positively or negatively correlated, or may not be correlated at all. If the Underlying Indices are not correlated to each other or are negatively correlated, there is a greater potential that you will not receive any Contingent Coupon payments and that you will lose a portion of your principal at maturity.

It is impossible to predict what the correlations between the Underlying Indices will be over the term of the Notes. The Underlying Indices represent different equity markets and these different equity markets may not perform similarly over the term of the Notes. Although the correlation of the Underlying Indices' performance may change over the term of the Notes, the Contingent Coupon Rate is determined, in part, based on the Underlying Indices' performance calculated using our internal models at the time when the terms of the Notes are determined. As stated earlier, a higher Contingent Coupon Rate is generally associated with lower correlation of the Underlying Indices, which reflects a greater potential for missed Contingent Coupons and for a loss on your investment at maturity. See “Correlation of the Underlying Indices” below.

Risks Relating to Liquidity and Secondary Market Issues

- Secondary trading in the Notes may be limited. The Notes will not be listed on a securities exchange. There may be little or no secondary market for the Notes. Even if there is a secondary market, it may not provide enough liquidity to allow you to trade or sell the Notes easily.

RBCCM intends to act as a market maker for the Notes, but is not required to do so. Because we do not expect that other market makers will participate significantly in the secondary market for the Notes, the price at which you may be able to trade the Notes is likely to depend on the price, if any, at which RBCCM is willing to buy the Notes. If at any time RBCCM does not act as a market maker, it is likely that there would be little or no secondary market for the Notes. We expect that transaction costs in any secondary market would be high. As a result, the difference between the bid and asked prices for the Notes in any secondary market could be substantial. If you sell the Notes before maturity, you may have to do so at a substantial discount from the issue price, and as a result, you may suffer substantial losses.

- Prior to maturity, the value of the Notes will be influenced by many unpredictable factors. Many economic and market factors will influence the terms of the Notes at issuance and their value prior to maturity or an automatic call. These factors are similar in some ways to those that could affect the value of a combination of instruments that might be used to replicate the payments on the Notes, including a combination of a bond with one or more options or other derivative instruments. For the market value of the Notes, we expect that, generally, the levels of the Underlying Indices on any day will affect the value of the Notes more than any other single factor. However, you should not expect the value of the Notes in the secondary market to vary in proportion to changes in the levels of the Underlying Indices. The value of the Notes will be affected by a number of other factors that may either offset or magnify each other, including:

- the level of the Underlying Indices;
- whether the levels of the Underlying Indices are below their respective Coupon Barriers or the Downside Thresholds;
- the expected volatility of the Underlying Indices;
- the expected correlation of the Underlying Indices;
- the time remaining to maturity of the Notes;
- the dividend rate on the securities composing the Underlying Indices;
-

interest and yield rates in the market generally, as well as in the markets of the equity securities composing the Underlying Indices;

- economic, financial, political, regulatory or judicial events that affect the Underlying Indices or the equity securities composing the Underlying Indices or stock markets generally, and which may affect the levels of the Underlying Indices on any Coupon Observation Date; and
- our creditworthiness, including actual or anticipated downgrades in our credit ratings.

Some or all of these factors will influence the terms of the Notes at issuance as well as the price you will receive if you choose to sell the Notes prior to maturity. The impact of any of the factors set forth above may enhance or offset some or all of any change resulting from another factor or factors. You may have to sell the Notes at a substantial discount from the principal amount if the levels of the Underlying Indices are at, below or not sufficiently above, their respective Initial Levels, Coupon Barriers or Downside Thresholds.

Risks Relating to the Underlying Indices

- Changes that affect an Underlying Index will affect the market value of the Notes and the payments on the Notes. The policies of the applicable index sponsor concerning the calculation of each Underlying Index, additions, deletions or substitutions of the components of that Underlying Index and the manner in which changes affecting those components, such as stock dividends, reorganizations or mergers, may be reflected in the Underlying Index and, therefore, could affect the amounts payable on the Notes, and the market value of the Notes prior to maturity. The amounts payable on the Notes and their market value could also be affected if the index sponsor changes these policies, for example, by changing the manner in which it calculates the applicable Underlying Index, or if the index sponsor discontinues or suspends calculation or publication of that Underlying Index, in which case it may become difficult to determine the market value of the Notes.

- We have no affiliation with either index sponsor and will not be responsible for any actions taken by an index sponsor. Neither index sponsor is an affiliate of ours or will be involved in the offering of the Notes in any way. Consequently, we have no control of the actions of either index sponsor, including any actions of the type that might impact the value of the Notes. Neither index sponsor has any obligation of any sort with respect to the Notes. Thus, no index sponsor has any obligation to take your interests into consideration for any reason, including in taking any actions that might affect the value of the Notes. None of our proceeds from the issuance of the Notes will be delivered to either index sponsor.

- The historical performance of the Underlying Indices should not be taken as an indication of their future performance. The levels of the Underlying Indices will determine the amount to be paid on the Notes. The historical performance of each Underlying Index does not give an indication of its future performance. As a result, it is impossible to predict whether the level of the Underlying Indices will rise or fall during the term of the Notes. The level of each Underlying Index will be influenced by complex and interrelated political, economic, financial and other factors. The level of each Underlying Index may decrease such that you may not receive any return on your investment or any Contingent Coupon payments. There can be no assurance that the level of each Underlying Index will not decrease so that at maturity you will not lose some or all of your investment.

- An investment in Notes linked to the RTY is subject to risks associated in investing in stocks with a small market capitalization. The RTY consists of stocks issued by companies with relatively small market capitalizations. These companies often have greater stock price volatility, lower trading volume and less liquidity than large-capitalization companies. As a result, the level of the RTY may be more volatile than that of a market measure that does not track solely small-capitalization stocks. Stock prices of small-capitalization companies are also often more vulnerable than those of large-capitalization companies to adverse business and economic developments, and the stocks of small-capitalization companies may be thinly traded, and be less attractive to many investors if they do not pay dividends. In addition, small capitalization companies are often less well-established and less stable financially than large-capitalization companies and may depend on a small number of key personnel, making them more vulnerable to loss of those individuals. Small capitalization companies tend to have lower revenues, less diverse product lines, smaller shares of their target markets, fewer financial resources and fewer competitive strengths than large-capitalization companies. These companies may also be more susceptible to adverse developments related to their products or services.

Risks Relating to Hedging Activities and Conflicts of Interest

- We, UBS or our respective affiliates may have adverse economic interests to the holders of the Notes. RBCCM, UBS and our respective affiliates trade the securities represented by the Underlying Indices, and other financial instruments related to the Underlying Indices, on a regular basis, for their accounts and for other accounts under our or their management. UBS, RBCCM and these affiliates may also issue or underwrite or assist unaffiliated entities in the issuance or underwriting of other securities or financial instruments that relate to the Underlying Indices. To the extent that we, UBS or any of our respective affiliates serves as issuer, agent or underwriter for such securities or financial instruments, our or their interests with respect to such products may be adverse to those of the holders of the Notes. Any of these trading activities could potentially affect the performance of the Underlying Indices and, accordingly, could affect the value of the Notes, and the amounts, if any, payable on the Notes.

We, UBS or our respective affiliates may currently or from time to time engage in business with the issuers of the securities represented by the Underlying Indices, including extending loans to, or making equity investments in, or providing advisory services to them, including merger and acquisition advisory services. In the course of this business, we, UBS or our respective affiliates may acquire non-public information about these companies, and we will not disclose any such information to you. None of us, UBS or our respective affiliates makes any representation or warranty to any purchaser of the Notes with respect to any matters whatsoever relating to our business with the issuer of any security included in the Underlying Indices or future price movements of any such security.

Additionally, we, UBS or our respective affiliates may serve as issuer, agent or underwriter for additional issuances of securities with returns linked or related to changes in the level of one or more of the Underlying Indices. By introducing competing products into the marketplace in this manner, we could adversely affect the value of the Notes.

We may hedge our obligations under the Notes through certain affiliates, who would expect to make a profit on such hedge. We or our affiliates may adjust these hedges by, among other things, purchasing or selling those assets at any time, including around the time of each Coupon Observation Date, which could have an impact on the return of the Notes. Because hedging our obligations entails risk and may be influenced by market forces beyond our or our affiliates' control, such hedging may result in a profit that is more or less than expected, or it may result in a loss.

- The calculation agent will have significant discretion with respect to the Notes, which may be exercised in a manner that is adverse to your interests. Our wholly-owned subsidiary, RBCCM, will act as the calculation agent. The calculation agent will determine, among other things, the closing levels of the Underlying Indices on each Coupon Observation Date, if any; whether the Notes are subject to an automatic call; the Final Level for each Underlying Index; the Underlying Index Return for each Underlying Index; and the amounts, if any, that we will pay to you on the Notes. The calculation agent will also be responsible for determining whether a market disruption event has occurred. The calculation agent may exercise its discretion in a manner which reduces your return on the Notes. Since these determinations by the calculation agent may affect the payments on the Notes, the calculation agent may have a conflict of interest if it needs to make a determination of this kind.
- Market disruptions may adversely affect your return. The calculation agent may, in its sole discretion, determine that the markets have been affected in a manner that prevents it from properly determining the closing level of one or both of the Underlying Indices on any Coupon Observation Date or calculating the Underlying Index Return for each Underlying Index and the amount, if any, that we are required to pay you. These events may include disruptions or suspensions of trading in the markets as a whole. If the calculation agent, in its sole discretion, determines that any of these events prevents us or any of our affiliates from properly hedging our obligations under the

Notes, it is possible that one or more of the Coupon Observation Dates and the Maturity Date will be postponed, and your return will be adversely affected. See "General Terms of the Notes—Market Disruption Events."

- Non-U.S. investors may be subject to certain additional risks. This document contains a general description of certain U.S. tax considerations relating to the Notes. In the event you are a non-U.S. investor, you should consult your tax advisors as to the consequences, under the tax laws of the country where you are a resident for tax purposes, of acquiring, holding and disposing of the Notes and receiving the payments that might be due under the Notes.

For a discussion of the Canadian federal income tax consequences of investing in the Notes, please see the section entitled "Tax Consequences—Canadian Taxation" in the accompanying prospectus. If you are not a Non-resident Holder (as defined in the section titled "Tax Consequences—Canadian Taxation" in the accompanying prospectus) or if you acquire the Notes in the secondary market, you should consult your tax advisors as to the consequences of acquiring, holding and disposing of the Notes and receiving the payments that may be due under the Notes.

- Significant aspects of the income tax treatment of an investment in the Notes may be uncertain. The tax treatment of an investment in the Notes is uncertain. We do not plan to request a ruling from the Internal Revenue Service or the Canada Revenue Agency regarding the tax treatment of an investment in the Notes, and the Internal Revenue Service, the Canada Revenue Agency or a court may not agree with the tax treatment described in this document.

The Internal Revenue Service has issued a notice indicating that it and the Treasury Department are actively considering whether, among other issues, a holder should be required to accrue ordinary income on a current basis irrespective of any Contingent Coupons. The outcome of this process is uncertain and could apply on a retroactive basis.

Please read carefully the sections entitled "U.S. Federal Income Tax Consequences" in this document, the section entitled "Tax Consequences" in the accompanying prospectus and the section entitled "Certain Income Tax Consequences" in the accompanying prospectus supplement. You should consult your tax advisor about your own tax situation.

Use of Proceeds and Hedging

The net proceeds we receive from the sale of the Notes will be used for general corporate purposes and, in part, by us or by one or more of our affiliates in connection with hedging our obligations under the Notes. The original issue price of the Notes includes the estimated cost of hedging our obligations under the Notes.

In anticipation of the sale of the Notes, we expect to enter into hedging transactions with one or more of our affiliates, involving the Underlying Indices or the securities composing the Underlying Indices, and/or related listed and/or over-the-counter derivative instruments prior to or on the trade date. From time to time, including around the time of each Coupon Observation Date and the Maturity Date, we and our respective affiliates may enter into additional hedging transactions or unwind those that we or they have entered into. In this regard, we and our respective affiliates may:

- acquire or dispose of investments relating to the Underlying Indices;
- acquire or dispose of long or short positions in listed or over-the-counter derivative instruments related to the Underlying Indices; or
- any combination of the above two.

We and our affiliates may acquire a long or short position in securities similar to the Notes from time to time and may, in our or their sole discretion, hold or resell those similar securities.

We and our affiliates may close out our or their hedges at any time during the term of the Notes, including on or before any Coupon Observation Date. That step may, for example, involve sales or purchases of over-the-counter derivative instruments linked to the Underlying Indices.

Hypothetical Examples

Hypothetical terms only. Actual terms may vary. See the cover page for actual offering terms.

The following examples are hypothetical and provided for illustrative purposes only. They do not purport to be representative of every possible scenario concerning increases or decreases in the level of either Underlying Index relative to its Initial Level. We cannot predict the Final Level of any Underlying Index. You should not take these examples as an indication or assurance of the expected performance of either Underlying Index. The numbers appearing in the examples and tables below have been rounded for ease of analysis. The following examples and tables illustrate the payment at maturity or upon an automatic call per Note on a hypothetical offering of the Notes, based on the following assumptions (actual terms for the Notes will be set on the trade date):

Principal Amount:	$10.00
Term:	Approximately three years unless earlier called
Hypothetical Contingent Coupon Rate:	7.00% per annum (or 1.75% per quarter) (the low end of the Contingent Coupon Rate range indicated on the cover hereof)
Hypothetical Contingent Coupon*:	$0.175 per quarter
Coupon Observation Dates:	Quarterly
Call Observation Dates:	Quarterly
Hypothetical Initial Levels**:	
Underlying Index A:	2,000.00
Underlying Index B:	1,000.00
Hypothetical Coupon Barriers**:	
Underlying Index A:	1,400.00 (which is 70% of its Initial Level)
Underlying Index B:	700.00 (which is 70% of its Initial Level)
Hypothetical Downside Thresholds**:	
Underlying Index A:	1,400.00 (which is 70% of its Initial Level)
Underlying Index B:	700.00 (which is 70% of its Initial Level)

* Contingent Coupon payments, if payable, will be paid in arrears in equal quarterly installments during the term of the Notes unless earlier called.

** Not the actual Initial Level, Coupon Barrier or Downside Threshold of either Underlying Index. The actual Initial Level, Coupon Barrier and Downside Threshold of each Underlying Index will be determined on the trade date.

Scenario #1: Notes Are Called on the Second Coupon Observation Date.

Date	Closing Level	Payment (per Note)
First Coupon Observation Date	Underlying Index A: 2,100.00 (at or above Initial Level)	$0.175 (Contingent Coupon – not callable)
	Underlying Index B: 1,100.00 (at or above Initial Level)	
Second Coupon Observation Date	Underlying Index A: 2,200.00 (at or above Initial Level)	$10.175 (settlement amount)
	Underlying Index B: 1,200.00 (at or above Initial Level)	
	Total Payment:	$10.35 (3.50% return)

Since the Notes are called on the second Coupon Observation Date, we will pay you on the Call Settlement Date a total of $10.175 per Note, reflecting your principal amount plus the applicable Contingent Coupon. When added to the Contingent Coupon payment of $0.175 received in respect of the prior Coupon Observation Date, we will have paid you a total of $10.35 per Note, for a 3.50% total return on the Notes. No further amount will be owed to you under the Notes.

Scenario #2: Notes Are NOT Called <u>and</u> the Final Level of Both Underlying Indices Are at or Above Their Respective Downside Thresholds.

Date	Closing Level	Payment (per Note)
First Coupon Observation Date	Underlying Index A: 1,500.00 (at or above Coupon Barrier; below Initial Level) Underlying Index B: 800.00 (at or above Coupon Barrier; below Initial Level)	$0.175 (Contingent Coupon – not callable)
Second Coupon Observation Date	Underlying Index A: 1,200.00 (below Coupon Barrier) Underlying Index B: 900.00 (at or above Coupon Barrier; below Initial Level)	$0.00 (Notes are not called)
Third Coupon Observation Date	Underlying Index A: 1,500.00 (at or above Coupon Barrier; below Initial Level) Underlying Index B: 600.00 (below Coupon Barrier)	$0.00 (Not callable)
Fourth Coupon Observation Date	Underlying Index A: 1,500.00 (at or above Coupon Barrier; below Initial Level) Underlying Index B: 1,100.00 (above Initial Level)	$0.175 (Contingent Coupon – Notes are not called)
Fifth through Eleventh Coupon Observation Dates	Underlying Index A: Various (below Coupon Barrier) Underlying Index B: Various (above Initial Level)	$0.00 (Not callable)
Final Valuation Date	Underlying Index A: 1,400.00 (at or above Downside Threshold and Coupon Barrier; below Initial Level) Underlying Index B: 1,100.00 (at or above Downside Threshold, Coupon Barrier and Initial Level)	$10.175 (Payment at Maturity)
	Total Payment:	$10.525 (5.25% return)

At maturity, we will pay you a total of $10.175 per Note, reflecting your principal amount plus the applicable Contingent Coupon. When added to the Contingent Coupon payments of $0.35 received in respect of prior Coupon Observation Dates on which Contingent Coupons were paid, we will have paid you a total of $10.525 per Note, for a 5.25% total return on the Notes.

Scenario #3: Notes Are NOT Called and the Final Level of one Underlying Index Is Below its Downside Threshold

Date	Closing Level	Payment (per Note)
First Coupon Observation Date	Underlying Index A: 1,500.00 (at or above Coupon Barrier; below Initial Level)	$0.175 (Contingent Coupon – not callable)
	Underlying Index B: 1,200.00 (above Initial Level)	
Second Coupon Observation Date	Underlying Index A: 1,500.00 (at or above Coupon Barrier; below Initial Level)	$0.175 (Contingent Coupon – Notes are not called)
	Underlying Index B: 800.00 (at or above Coupon Barrier; below Initial Level)	
Third Coupon Observation Date	Underlying Index A: 2,200.00 (above Initial Level)	$0.175 (Contingent Coupon – not callable)
	Underlying Index B: 800.00 (at or above Coupon Barrier; below Initial Level)	
Fourth Coupon Observation Date	Underlying Index A: 1,500.00 (at or above Coupon Barrier; below Initial Level)	$0.00 (Notes are not called)
	Underlying Index B: 600.00 (below Coupon Barrier)	
Fifth through Eleventh Coupon Observation Dates	Underlying Index A: Various (below Coupon Barrier)	$0.00 (Notes are not called)
	Underlying Index B: Various (above Initial Level)	
Final Valuation Date	Underlying Index A: 800.00 (below Downside Threshold and Coupon Barrier)	$10.00 + [$10.00 × Underlying Index Return] = $10.00 + [$10.00 × -60%] = $10.00 - $6.00 = $4.00 (Payment at Maturity)
	Underlying Index B: 1,300.00 (above Initial Level)	
	Total Payment:	$4.525 (-54.75% return)

Since the Notes are not called and the Final Level of the Least Performing Underlying Index is below its Downside Threshold, we will pay you at maturity $4.00 per Note. When added to the Contingent Coupon payments of $0.5475 received in respect of prior Coupon Observation Dates, we will have paid you $4.525 per Note, for a loss on the Notes of 54.75%.

The Notes differ from ordinary debt securities in that, among other features, we are not necessarily obligated to repay the full amount of your initial investment. If the Notes are not called on any Coupon Observation Date, you may lose some or all of your initial investment. Specifically, if the Notes are not called and the Final Level of the Least Performing Underlying Index is less than its Downside Threshold, you will lose 1% (or a fraction thereof) of your principal amount for each 1% (or a fraction thereof) that its Underlying Index Return is less than zero.

Any payment on the Notes, including payments in respect of an automatic call, Contingent Coupon or any repayment of principal provided at maturity, is dependent on our ability to satisfy our obligations when they come due. If we are unable to meet our obligations, you may not receive any amounts due to you under the Notes.

What Are the Tax Consequences of the Notes?

U.S. Federal Income Tax Consequences

The following is a general description of the material U.S. tax considerations relating to the Notes. It does not purport to be a complete analysis of all tax considerations relating to the Notes. Prospective purchasers of the Notes should consult their tax advisors as to the consequences under the tax laws of the country of which they are a resident for tax purposes and the tax laws of Canada and the U.S. of acquiring, holding and disposing of the Notes and receiving payments under the Notes. This summary is based upon the law as in effect on the date of this document and is subject to any change in law that may take effect after such date.

The following section supplements the discussion of U.S. federal income taxation in the accompanying prospectus and prospectus supplement. It applies only to those holders who are not excluded from the discussion of U.S. federal income taxation in the accompanying prospectus. This discussion applies only to U.S. holders and non-U.S. holders that will purchase the Notes upon original issuance and will hold the Notes as capital assets for U.S. federal income tax purposes. In addition, the discussion below assumes that an investor in the Notes will be subject to a significant risk that it will lose a significant amount of its investment in the Notes.

You should consult your tax advisor concerning the U.S. federal income tax and other tax consequences of your investment in the Notes in your particular circumstances, including the application of state, local or other tax laws and the possible effects of changes in federal or other tax laws.

NO STATUTORY, JUDICIAL OR ADMINISTRATIVE AUTHORITY DIRECTLY DISCUSSES HOW THE NOTES SHOULD BE TREATED FOR U.S. FEDERAL INCOME TAX PURPOSES. AS A RESULT, THE U.S. FEDERAL INCOME TAX CONSEQUENCES OF AN INVESTMENT IN THE NOTES ARE UNCERTAIN. BECAUSE OF THE UNCERTAINTY, YOU SHOULD CONSULT YOUR TAX ADVISOR IN DETERMINING THE U.S. FEDERAL INCOME TAX AND OTHER TAX CONSEQUENCES OF YOUR INVESTMENT IN THE NOTES, INCLUDING THE APPLICATION OF STATE, LOCAL OR OTHER TAX LAWS AND THE POSSIBLE EFFECTS OF CHANGES IN FEDERAL OR OTHER TAX LAWS.

We will not attempt to ascertain whether the issuer of any of the component stocks included in any Underlying Index would be treated as a “passive foreign investment company” within the meaning of Section 1297 of the Internal Revenue Code or a “U.S. real property holding corporation” within the meaning of Section 897 of the Internal Revenue Code. If the issuer of one or more of such stocks were so treated, certain adverse U.S. federal income tax consequences could possibly apply. You should refer to any available information filed with the SEC and other authorities by the issuers of the component stock included in any Underlying Index and consult your tax advisor regarding the possible consequences to you in this regard, if any.

In the opinion of our counsel, Morrison & Foerster LLP, it would generally be reasonable to treat a Note with terms described in this document as a callable pre-paid cash-settled contingent income-bearing derivative contract linked to the Underlying Index for U.S. federal income tax purposes, and the terms of the Notes require a holder and us (in the absence of a change in law or an administrative or judicial ruling to the contrary) to treat the Notes for all tax purposes in accordance with such characterization. In addition, we intend to treat the Contingent Coupons as U.S. source income for U.S. federal income tax purposes. The following discussion assumes that the treatment described in this paragraph is proper and will be respected.

Although the U.S. federal income tax treatment of the Contingent Coupons is uncertain, we intend to take the position, and the following discussion assumes, that such Contingent Coupons (including any coupon paid on or with respect to the call or Maturity Date) constitute taxable ordinary income to a U.S. holder at the time received or accrued in accordance with the holder’s regular method of accounting. If the Notes are treated as described above, a U.S. holder should generally recognize capital gain or loss upon the call, sale or maturity of the Notes in an amount equal to the difference between the amount a holder receives at such time (other than amounts properly attributable to any Contingent Coupon, which would be taxed, as described above, as ordinary income) and the holder’s tax basis in the Notes. In general, a U.S. holder’s tax basis in the Notes will be equal to the price the holder paid for the Notes. Capital gain recognized by an individual U.S. holder is generally taxed at preferential rates where the property is held for more than one year and is generally taxed at ordinary income rates where the property is held for one year or less. The ordinary income treatment of the Contingent Coupons, in conjunction with the capital loss treatment of any loss recognized upon the sale, exchange or maturity of the Notes, could result in adverse tax consequences to a holder because the deductibility of capital losses is subject to limitations.

Alternative Treatments. Alternative tax treatments of the Notes are also possible and the Internal Revenue Service might assert that a treatment other than that described above is more appropriate. For example, it would also be possible to treat the Notes, and the Internal Revenue Service might assert that the Notes should be treated, as a single debt instrument.

Because the Notes have a term that exceeds one year, such a debt instrument would be subject to the special tax rules governing contingent payment debt instruments. If the Notes are so treated, a holder would generally be required to accrue interest income over the term of the Notes based upon the yield at which we would issue a non-contingent fixed-rate debt instrument with other terms and conditions similar to the Notes. In addition, any gain a holder might recognize upon the call, sale or maturity of the Notes would be ordinary income and any loss recognized by a holder at such time would generally be ordinary loss to the extent of interest that same holder included in income in the current or previous taxable years in respect of the Notes, and thereafter, would be capital loss.

Because of the absence of authority regarding the appropriate tax characterization of the Notes, it is also possible that the Internal Revenue Service could seek to characterize the Notes in a manner that results in other tax consequences that are different from those described above. For example, the Internal Revenue Service could possibly assert that any gain or loss that a holder may recognize upon the call, sale or maturity of the Notes should be treated as ordinary gain or loss.

The Internal Revenue Service has released a notice that may affect the taxation of holders of the Notes. According to the notice, the Internal Revenue Service and the U.S. Treasury Department are actively considering whether the holder of an instrument similar to the Notes should be required to accrue ordinary income on a current basis irrespective of any Contingent Coupons. It is not possible to determine what guidance they will ultimately issue, if any. It is possible, however, that under such guidance, holders of the Notes will ultimately be required to accrue income currently irrespective of any Contingent Coupons and this could be applied on a retroactive basis.

The Internal Revenue Service and the U.S. Treasury Department are also considering other relevant issues, including whether additional gain or loss from such instruments should be treated as ordinary or capital and whether the special “constructive ownership rules” of Section 1260 of the Internal Revenue Code, which very generally can operate to recharacterize certain long-term capital gains as ordinary income and impose an interest charge, might be applied to such instruments. Holders are urged to consult their tax advisors concerning the significance, and the potential impact, of the above considerations. We intend to treat the Notes for U.S. federal income tax purposes in accordance with the treatment described in this document unless and until such time as the U.S. Treasury Department and Internal Revenue Service determine that some other treatment is more appropriate.

Backup Withholding and Information Reporting. Payments made with respect to the Notes and proceeds from the sale of the Notes may be subject to a backup withholding tax unless, in general, the holder complies with certain procedures or is an exempt recipient. Any amounts so withheld generally will be refunded by the Internal Revenue Service or allowed as a credit against the holder's U.S. federal income tax liability, provided the holder makes a timely filing of an appropriate tax return or refund claim to the Internal Revenue Service.

Reports will be made to the Internal Revenue Service and to holders that are not exempted from the reporting requirements.

Non-U.S. Holders. The following discussion applies to non-U.S. holders of the Notes. A non-U.S. holder is a beneficial owner of the Notes that, for U.S. federal income tax purposes, is a non-resident alien individual, a foreign corporation, or a foreign estate or trust.

While the U.S. federal income tax treatment of the Notes (including proper characterization of the Contingent Coupons for U.S. federal income tax purposes) is uncertain, U.S. federal income tax at a 30% rate (or at a lower rate under an applicable income tax treaty) will be withheld in respect of the Contingent Coupons paid to a non-U.S. holder unless such payments are effectively connected with the conduct by the non-U.S. holder of a trade or business in the U.S. (in which case, to avoid withholding, the non-U.S. holder will be required to provide a Form W-8ECI). We will not pay any additional amounts in respect of such withholding. To claim benefits under an income tax treaty, a non-U.S. holder must obtain a taxpayer identification number and certify as to its eligibility under the appropriate treaty's limitations on benefits article, if applicable (which certification may generally be made on a Form W-8BEN or Form W-8BEN-E, or a substitute or successor form). In addition, special rules may apply to claims for treaty benefits made by corporate non-U.S. holders. A non-U.S. holder that is eligible for a reduced rate of U.S. federal withholding tax pursuant to an income tax treaty may obtain a refund of any excess amounts withheld by filing an appropriate claim for refund with the Internal Revenue Service. The availability of a lower rate of withholding or an exemption from withholding under an applicable income tax treaty will depend on the proper characterization of the Contingent Coupons under U.S. federal income tax laws and whether such treaty rate or exemption applies to such Contingent Coupon payments. No assurance can be provided on the proper characterization of the Contingent Coupons for U.S. federal income tax purposes and, accordingly, no assurance can be provided on the availability of benefits under any income tax treaty. Non-U.S. holders must consult their tax advisors in this regard.

Except as discussed below, a non-U.S. holder will generally not be subject to U.S. federal income or withholding tax on any gain (not including for the avoidance of doubt any amounts properly attributable to any Contingent Coupon which would be subject to the rules discussed in the previous paragraph) upon the call, sale or maturity of the Notes, provided that (i) the holder complies with any applicable certification requirements (which certification may generally be made on a Form W-8BEN or Form W-8BEN-E, or a substitute or successor form), (ii) the payment is not effectively connected with the conduct by the holder of a U.S. trade or business, and (iii) if the holder is a non-resident alien individual, such holder is not present in the U.S. for 183 days or more during the taxable year of the call, sale or maturity of the Notes. In the case of (ii) above, the holder generally would be subject to U.S. federal income tax with respect to any income or gain in the same manner as if the holder were a U.S. holder and, in the case of a holder that is a corporation, the holder may also be subject to a branch profits tax equal to 30% (or such lower rate provided by an applicable U.S. income tax treaty) of a portion of its earnings and profits for the taxable year that are effectively connected with its conduct of a trade or business in the U.S., subject to certain adjustments. Payments made to a non-U.S. holder may be subject to information reporting and to backup withholding unless the holder complies with applicable certification and identification requirements as to its foreign status.

As discussed above, alternative characterizations of the Notes for U.S. federal income tax purposes are possible. Should an alternative characterization, by reason of change or clarification of the law, by regulation or otherwise, cause payments as to the Notes to become subject to withholding tax in addition to the withholding tax described above, we will withhold tax at the applicable statutory rate. The Internal Revenue Service has also indicated that it is considering whether income in respect of instruments such as the Notes should be subject to withholding tax. Prospective investors should consult their own tax advisors in this regard.

Under Section 871(m) of the Code, a "dividend equivalent" payment is treated as a dividend from sources within the United States. Such payments generally would be subject to a 30% U.S. withholding tax if paid to a non-U.S. holder. Under U.S. Treasury Department regulations, payments (including deemed payments) with respect to equity-linked instruments ("ELIs") that are "specified ELIs" may be treated as dividend equivalents if such specified ELIs reference an interest in an "underlying security," which is generally any interest in an entity taxable as a corporation for U.S. federal income tax purposes if a payment with respect to such interest could give rise to a U.S. source dividend. However, U.S. Treasury Department regulations provide that withholding on dividend equivalent payments will not apply to specified ELIs that are not delta-one instruments and that are issued before January 1, 2018. Based on our determination that the Notes are not delta-one instruments, non-U.S. holders should not be subject to withholding on dividend equivalent payments, if any, under the Notes. However, it is possible that the Notes could be treated as deemed reissued for U.S. federal income tax purposes upon the occurrence of certain events affecting the Underlying

Indices or the Notes (for example, upon an Underlying Index rebalancing), and following such occurrence the Notes could be treated as subject to withholding on dividend equivalent payments. Non-U.S. holders that enter, or have entered, into other transactions in respect of the Underlying Indices or the Notes should consult their tax advisors as to the application of the dividend equivalent withholding tax in the context of the Notes and their other transactions. If any payments are treated as dividend equivalents subject to withholding, we (or the applicable withholding agent) would be entitled to withhold taxes without being required to pay any additional amounts with respect to amounts so withheld.

Individual holders that own “specified foreign financial assets” may be required to include certain information with respect to such assets with their U.S. federal income tax return. You are urged to consult your own tax advisor regarding such requirements with respect to the Notes.

Foreign Account Tax Compliance Act. The Foreign Account Tax Compliance Act (“FATCA”) imposes a 30% U.S. withholding tax on certain U.S. source payments of interest (and OID), dividends, or other fixed or determinable annual or periodical gain, profits, and income, and on the gross proceeds from a disposition of property of a type which can produce U.S. source interest or dividends (“Withholdable Payments”), if paid to a foreign financial institution (including amounts paid to a foreign financial institution on behalf of a holder), unless such institution enters into an agreement with the U.S. Treasury Department to collect and provide to the U.S. Treasury Department certain information regarding U.S. financial account holders, including certain account holders that are foreign entities with U.S. owners, with such institution, or otherwise complies with the legislation. In addition, the Notes may constitute a “financial account” for these purposes and, thus, be subject to information reporting requirements pursuant to FATCA. FATCA also generally imposes a withholding tax of 30% on Withholdable Payments made to a non-financial foreign entity unless such entity provides the withholding agent with a certification that it does not have any substantial U.S. owners or a certification identifying the direct and indirect substantial U.S. owners of the entity. Under certain circumstances, a holder may be eligible for refunds or credits of such taxes.

The U.S. Treasury Department and the IRS have announced that withholding on payments of gross proceeds from a sale or redemption of the Notes will only apply to payments made after December 31, 2018. If we determine withholding is appropriate with respect to the Notes, we will withhold tax at the applicable statutory rate, and we will not pay any additional amounts in respect of such withholding. Therefore, if such withholding applies, any payments on the Notes will be significantly less than what you would have otherwise received. Foreign financial institutions and non-financial foreign entities located in jurisdictions that have an intergovernmental agreement with the United States governing FATCA may be subject to different rules. Prospective investors are urged to consult with their own tax advisors regarding the possible implications of FATCA on their investment in the Notes.

Canadian Federal Income Tax Consequences

For a discussion of the material Canadian federal income tax consequences relating to an investment in the Notes, please see the section entitled “Tax Consequences—Canadian Taxation” in the accompanying prospectus, which you should carefully review prior to investing in the Notes.

Information About the Underlying Indices

We have derived all information contained in this document regarding each of the Underlying Indices, including, without limitation, its make up, method of calculation, and changes in its components, from publicly available sources. The information reflects the policies of, and is subject to change by, the applicable index sponsor. Each index sponsor, which owns the copyright and all other rights to the applicable Underlying Index, has no obligation to continue to publish, and may discontinue publication of, that Underlying Index. The consequences of an index sponsor discontinuing publication of the applicable Underlying Index are discussed below under the heading "General Terms of the Notes—Discontinuation of an Underlying Index; Alteration of Method of Calculation." None of us, UBS or RBCCM accepts any responsibility for the calculation, maintenance or publication of any Underlying Index or any successor index.

The S&P 500® Index

The SPX is intended to provide an indication of the pattern of common stock price movement in the large capitalization segment of the U.S. equity market. The calculation of the level of the SPX is based on the relative value of the aggregate market value of the common stocks of 500 companies as of a particular time compared to the aggregate average market value of the common stocks of 500 similar companies during the base period of the years 1941 through 1943.

S&P Dow Jones Indices LLC ("SPDJI" or the "index sponsor") chooses companies for inclusion in the SPX with the aim of achieving a distribution by broad industry groupings that approximates the distribution of these groupings in the common stock population of its Stock Guide Database of over 10,000 companies, which the index sponsor uses as an assumed model for the composition of the total market. Relevant criteria employed by the index sponsor include the viability of the particular company, the extent to which that company represents the industry group to which it is assigned, the extent to which the market price of that company's common stock generally is responsive to changes in the affairs of the respective industry, and the market value and trading activity of the common stock of that company. SPDJI from time to time, in its sole discretion, may add companies to, or delete companies from, the SPX to achieve the objectives stated above.

The index sponsor calculates the SPX by reference to the prices of the constituent stocks of the SPX without taking account of the value of dividends paid on those stocks. As a result, the return on the Notes will not reflect the return you would realize if you actually owned the SPX constituent stocks and received the dividends paid on those stocks.

Computation of the SPX

While SPDJI currently employs the following methodology to calculate the SPX, no assurance can be given that SPDJI will not modify or change this methodology in a manner that may affect the Payment at Maturity.

Historically, the market value of any component stock of the SPX was calculated as the product of the market price per share and the number of then outstanding shares of such component stock. In March 2005, SPDJI began shifting the SPX halfway from a market capitalization weighted formula to a float-adjusted formula, before moving the SPX to full float adjustment on September 16, 2005. SPDJI's criteria for selecting stocks for the SPX did not change with the shift to float adjustment. However, the adjustment affects each company's weight in the SPX.

Under float adjustment, the share counts used in calculating the SPX reflect only those shares that are available to investors, not all of a company's outstanding shares. Float adjustment excludes shares that are closely held by control groups, other publicly traded companies or government agencies.

In September 2012, all shareholdings representing more than 5% of a stock's outstanding shares, other than holdings by "block owners," were removed from the float for purposes of calculating the SPX. Generally, these "control holders" will include officers and directors, private equity, venture capital and special equity firms, other publicly traded companies that hold shares for control, strategic partners, holders of restricted shares, ESOPs, employee and family trusts, foundations associated with the company, holders of unlisted share classes of stock, government entities at all levels (other than government retirement/pension funds) and any individual person who controls a 5% or greater stake in a company as reported in regulatory filings. However, holdings by block owners, such as depositary banks, pension funds, mutual funds and ETF providers, 401(k) plans of the company, government retirement/pension funds, investment funds of insurance companies, asset managers and investment funds, independent foundations and savings and investment plans, will ordinarily be considered part of the float.

Treasury stock, stock options, equity participation units, warrants, preferred stock, convertible stock, and rights are not part of the float. Shares held in a trust to allow investors in countries outside the country of domicile, such as depositary shares and Canadian exchangeable shares are normally part of the float unless those shares form a control block. If a company has multiple classes of stock outstanding, shares in an unlisted or non-traded class are treated as a control block.

For each stock, an investable weight factor ("IWF") is calculated by dividing the available float shares by the total shares outstanding. As of September 21, 2012, available float shares are defined as the total shares outstanding less shares held by control holders. This calculation is subject to a 5% minimum threshold for control blocks. For example, if a company's officers and directors hold 3% of the company's shares, and no other control group holds 5% of the company's shares, SPDJI would assign that company an IWF of 1.00, as no control group meets the 5% threshold. However, if a company's officers and directors hold 3% of the company's shares and another control group holds 20% of the company's shares, SPDJI would assign an IWF of 0.77, reflecting the fact that 23% of the company's outstanding shares are considered to be held for control. For companies with multiple classes of stock, SPDJI calculates the weighted average IWF for each stock using the proportion of the total company market capitalization of each share class as weights.

The SPX is calculated using a base-weighted aggregate methodology. The level of the SPX reflects the total market value of all 500 component stocks relative to the base period of the years 1941 through 1943. An indexed number is used to represent the results of this calculation in order to make the level easier to use and track over time. The actual total market value of the component stocks during the base period of the years 1941 through 1943 has been set to an indexed level of 10. This is often indicated by the notation 1941-43 = 10. In practice, the daily calculation of the SPX is computed by dividing the total market value of the component stocks by the "index divisor." By itself, the index divisor is an arbitrary number. However, in the context of the calculation of the SPX, it serves as a link to the original base period level of the SPX. The index divisor keeps the SPX comparable over time and is the manipulation point for all adjustments to the SPX, which is index maintenance.

Index Maintenance

Index maintenance includes monitoring and completing the adjustments for company additions and deletions, share changes, stock splits, stock dividends, and stock price adjustments due to company restructuring or spinoffs. Some corporate actions, such as stock splits and stock dividends, require changes in the common shares outstanding and the stock prices of the companies in the SPX, and do not require index divisor adjustments.

To prevent the level of the SPX from changing due to corporate actions, corporate actions which affect the total market value of the SPX require an index divisor adjustment. By adjusting the index divisor for the change in market value, the level of the SPX remains constant and does not reflect the corporate actions of individual companies in the SPX. Index divisor adjustments are made after the close of trading and after the calculation of the SPX closing level.

Changes in a company's shares outstanding of 5.00% or more due to mergers, acquisitions, public offerings, tender offers, Dutch auctions, or exchange offers are made as soon as reasonably possible. Share changes due to mergers or acquisitions of publicly held companies that trade on a major exchange are implemented when the transaction occurs, even if both of the companies are not in the same headline index, and regardless of the size of the change. All other changes of 5.00% or more (due to, for example, company stock repurchases, private placements, redemptions, exercise of options, warrants, conversion of preferred stock, notes, debt, equity participation units, at the market offerings, or other recapitalizations) are made weekly and are announced on Fridays for implementation after the close of trading on the following Friday. Changes of less than 5.00% are accumulated and made quarterly on the third Friday of March, June, September, and December, and are usually announced two to five days prior.

If a change in a company's shares outstanding of 5.00% or more causes a company's IWF to change by five percentage points or more, the IWF is updated at the same time as the share change. IWF changes resulting from partial tender offers are considered on a case-by-case basis.

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S&P DOW JONES INDICES DO NOT GUARANTEE THE ADEQUACY, ACCURACY, TIMELINESS AND/OR THE COMPLETENESS OF THE SPX OR ANY DATA RELATED THERETO OR ANY COMMUNICATION, INCLUDING BUT NOT LIMITED TO, ORAL OR WRITTEN COMMUNICATION (INCLUDING ELECTRONIC COMMUNICATIONS) WITH RESPECT THERETO. S&P DOW JONES INDICES SHALL NOT BE SUBJECT

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Historical Information

The following table sets forth the quarterly high, low and period-end closing levels of the SPX, as reported by Bloomberg L.P. The historical performance of the SPX should not be taken as an indication of future performance. We cannot give you assurance that the performance of the SPX will result in the return of any of your initial investment.

Quarter Begin	Quarter End	Quarterly Closing High	Quarterly Closing Low	Quarterly Period-End Close
1/1/2008	3/31/2008	1,447.16	1,273.37	1,322.70
4/1/2008	6/30/2008	1,426.63	1,278.38	1,280.00
7/1/2008	9/30/2008	1,305.32	1,106.39	1,166.36
10/1/2008	12/31/2008	1,161.06	752.44	903.25
1/1/2009	3/31/2009	934.70	676.53	797.87
4/1/2009	6/30/2009	946.21	811.08	919.32
7/1/2009	9/30/2009	1,071.66	879.13	1,057.08
10/1/2009	12/31/2009	1,127.78	1,025.21	1,115.10
1/1/2010	3/31/2010	1,174.17	1,056.74	1,169.43
4/1/2010	6/30/2010	1,217.28	1,030.71	1,030.71
7/1/2010	9/30/2010	1,148.67	1,022.58	1,141.20
10/1/2010	12/31/2010	1,259.78	1,137.03	1,257.64
1/1/2011	3/31/2011	1,343.01	1,256.88	1,325.83
4/1/2011	6/30/2011	1,363.61	1,265.42	1,320.64
7/1/2011	9/30/2011	1,353.22	1,119.46	1,131.42
10/1/2011	12/31/2011	1,285.09	1,099.23	1,257.60
1/1/2012	3/31/2012	1,416.51	1,277.06	1,408.47
4/1/2012	6/30/2012	1,419.04	1,278.04	1,362.16
7/1/2012	9/30/2012	1,465.77	1,334.76	1,440.67
10/1/2012	12/31/2012	1,461.40	1,353.33	1,426.19
1/1/2013	3/31/2013	1,569.19	1,457.15	1,569.19
4/1/2013	6/30/2013	1,669.16	1,541.61	1,606.28
7/1/2013	9/30/2013	1,725.52	1,614.08	1,681.55
10/1/2013	12/31/2013	1,848.36	1,655.45	1,848.36
1/1/2014	3/31/2014	1,878.04	1,741.89	1,872.34
4/1/2014	6/30/2014	1,962.87	1,815.69	1,960.23
7/1/2014	9/30/2014	2,011.36	1,909.57	1,972.29
10/1/2014				