Palo Alto Networks Inc Form 4 December 10, 2014 **OMB APPROVAL** FORM 4 UNITED STATES SECURITIES AND EXCHANGE COMMISSION OMB 3235-0287 Washington, D.C. 20549 Number: Check this box January 31, Expires: if no longer 2005 STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF subject to Estimated average **SECURITIES** Section 16. burden hours per Form 4 or response... 0.5 Form 5 Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, obligations Section 17(a) of the Public Utility Holding Company Act of 1935 or Section may continue. 30(h) of the Investment Company Act of 1940 See Instruction 1(b). (Print or Type Responses) 1. Name and Address of Reporting Person \* 5. Relationship of Reporting Person(s) to 2. Issuer Name and Ticker or Trading MCLAUGHLIN MARK D Issuer Symbol Palo Alto Networks Inc [PANW] (Check all applicable) (First) (Middle) (Last) 3. Date of Earliest Transaction (Month/Day/Year) \_X\_ Director 10% Owner Other (specify X\_Officer (give title C/O PALO ALTO NETWORKS 12/08/2014 below) below) INC., 4401 GREAT AMERICA President & CEO PKWY (Street) 4. If Amendment, Date Original 6. Individual or Joint/Group Filing(Check Filed(Month/Day/Year) Applicable Line) \_X\_ Form filed by One Reporting Person \_ Form filed by More than One Reporting SANTA CLARA, CA 95054 Person (City) (State) (Zip) Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned 7. Nature 1.Title of 2. Transaction Date 2A. Deemed 3. 4. Securities Acquired (A) or 5. Amount of 6. Security (Month/Day/Year) Execution Date, if TransactionDisposed of (D) Securities Ownership of Indirect (Instr. 3) any Code (Instr. 3, 4 and 5) Beneficially Form: Beneficial (Month/Day/Year) Owned Ownership (Instr. 8) Direct (D) or Indirect (Instr. 4) Following Reported **(I)** (A) Transaction(s) (Instr. 4) or (Instr. 3 and 4) Code V (D) Amount Drice

		Coue v	Amount	(D)	THEE		
Common Stock	12/08/2014	М	120,300	А	\$ 10.77	820,484	D
Common Stock	12/08/2014	S <u>(1)</u>	41,301	D	\$ 116.5645 (2)	779,183	D
Common Stock	12/08/2014	S <u>(1)</u>	21,099	D	\$ 116.9864 ( <u>3)</u>	758,084	D
Common Stock	12/08/2014	S <u>(1)</u>	17,929	D	\$ 118.6516	740,155	D

					(4)		
Common Stock	12/08/2014	S <u>(1)</u>	26,371	D	\$ 119.3068 (5)	713,784	D
Common Stock	12/08/2014	S <u>(1)</u>	13,600	D	\$ 120.1572 (6)	700,184	D

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

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

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

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transactio Code (Instr. 8)	orDeri Secu Acqu Disp	umber of vative urities uired (A) or posed of (D) tr. 3, 4, and	6. Date Exer Expiration D (Month/Day/	ate	7. Title and A Underlying S (Instr. 3 and	Securities
				Code V	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount Number Shares
Employee Stock Option (right to buy)	\$ 10.77	12/08/2014		М		120,300	(7)	09/29/2021	Common Stock	120,30

## **Reporting Owners**

Reporting Owner Name / Address	Relationships					
	Director	10% Owner	Officer	Other		
MCLAUGHLIN MARK D C/O PALO ALTO NETWORKS INC. 4401 GREAT AMERICA PKWY SANTA CLARA, CA 95054	Х		President & CEO			
Signatures						
/s/ Jeff True, Attorney in-Fact for Mark McLaughlin	D.	1	2/10/2014			
<b>**</b> Signature of Reporting Person			Date			

# **Explanation of Responses:**

- \* If the form is filed by more than one reporting person, see Instruction 4(b)(v).
- \*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations. See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).
- (1) The sales reported on this Form 4 were effected pursuant to a Rule 10b5-1 trading plan adopted by the Reporting Person on June 25, 2014.

This sale price represents the weighted average sale price of the shares sold ranging from \$115.84 to \$116.835 per share. Upon request by(2) the Commission staff, the Issuer, or a security holder of the Issuer, the Reporting Person will provide full information regarding the number of shares sold at each separate price within the range set forth in this Form 4.

This sale price represents the weighted average sale price of the shares sold ranging from \$116.84 to \$117.69 per share. Upon request by(3) the Commission staff, the Issuer, or a security holder of the Issuer, the Reporting Person will provide full information regarding the number of shares sold at each separate price within the range set forth in this Form 4.

This sale price represents the weighted average sale price of the shares sold ranging from \$117.90 to \$118.89 per share. Upon request by(4) the Commission staff, the Issuer, or a security holder of the Issuer, the Reporting Person will provide full information regarding the number of shares sold at each separate price within the range set forth in this Form 4.

This sale price represents the weighted average sale price of the shares sold ranging from \$118.90 to \$119.88 per share. Upon request by(5) the Commission staff, the Issuer, or a security holder of the Issuer, the Reporting Person will provide full information regarding the number of shares sold at each separate price within the range set forth in this Form 4.

This sale price represents the weighted average sale price of the shares sold ranging from \$119.91 to \$120.54 per share. Upon request by(6) the Commission staff, the Issuer, or a security holder of the Issuer, the Reporting Person will provide full information regarding the number of shares sold at each separate price within the range set forth in this Form 4.

(7) One forty-eighth (1/48) of the shares subject to the option vest monthly, provided that the Reporting Person continues to serve through each vesting date.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *see* Instruction 6 for procedure. Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number. panying prospectus supplement. You should consult your tax advisor about your own tax situation.

#### Additional Risks Relating to the Russell 2000® Index

An investment in the Underlying Asset is subject to risks associated in investing in stocks with a small market capitalization. — The Russell 20@Ondex 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 this index 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 generally 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 typically 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.

Hypothetical Return on the Notes at Maturity

The following table and examples illustrate the hypothetical return at maturity on a \$1,000 investment in the notes. The "return," as used in this section is the number, expressed as a percentage, which results from comparing the payment at maturity per \$1,000 in principal amount of the notes to \$1,000. The hypothetical total returns set forth below are based on a hypothetical Initial Level of 1,000.00, a Barrier Percentage of -10.00% (the Barrier Level is 90.00% of the Initial Level) and a hypothetical Digital Return of 9.25%. The hypothetical returns set forth below are for illustrative purposes only and may not be the actual returns applicable to investors in the notes. The numbers appearing in the following table and in the examples below have been rounded for ease of analysis.

Hypothetical	Hypothetical	Hypothetical	Hypothetical
Final Level	Percentage Change	Payment at Maturity	Return on the Notes
2,000.00	100.00%	\$1,092.50	9.25%
1,500.00	50.00%	\$1,092.50	9.25%
1,200.00	20.00%	\$1,092.50	9.25%
1,100.00	10.00%	\$1,092.50	9.25%
1,092.50	9.25%	\$1,092.50	9.25%
1,050.00	5.00%	\$1,092.50	9.25%
1,020.00	2.00%	\$1,092.50	9.25%
1,000.00	0.00%	\$1,000.00	0.00%
980.00	-2.00%	\$1,000.00	0.00%
950.00	-5.00%	\$1,000.00	0.00%
900.00	-10.00%	\$1,000.00	0.00%
800.00	-20.00%	\$800.00	-20.00%
700.00	-30.00%	\$700.00	-30.00%
600.00	-40.00%	\$600.00	-40.00%
400.00	-60.00%	\$400.00	-60.00%
200.00	-80.00%	200.00	-80.00%
0.00	-100.00%	\$0.00	-100.00%

Hypothetical Examples of Amounts Payable at Maturity

The following examples illustrate how the returns set forth in the table above are calculated.

Example 1: The level of the Underlying Asset decreases from the hypothetical Initial Level of 1,000.00 to a hypothetical Final Level of 400.00, representing a Percentage Change of -60%. Because the Percentage Change is negative and the hypothetical Final Level is less than the hypothetical Initial Level by more than the Barrier Percentage of -10.00%, the investor receives a payment at maturity of \$400 per \$1,000 in principal amount of the notes, calculated as follows:

 $1,000 + (1,000 \times -60\%) = 400$ 

Example 2: The level of the Underlying Asset decreases from the hypothetical Initial Level of 1,000.00 to a hypothetical Final Level of 980.00, representing a Percentage Change of -2.00%. Although the Percentage Change is negative, because the hypothetical Final Level is less than the hypothetical Initial Level by not more than 10.00%, the investor receives a payment at maturity of \$1,000 per \$1,000 in principal amount of the notes.

Example 3: The level of the Underlying Asset increases from the hypothetical Initial Level of 1,000.00 to a hypothetical Final Level of 1,050.00, representing a Percentage Change of 5.00%. Because the hypothetical Final Level is greater than the hypothetical Initial Level, the investor receives a payment at maturity of \$1,092.50 per

## Explanation of Responses:

\$1,000 in principal amount of the notes, representing the Digital Return.

Example 4: The level of the Underlying Asset increases from the hypothetical Initial Level of 1,000.00 to a hypothetical Final Level of 1,500.00, representing a Percentage Change of 50%. Because the hypothetical Final Level is greater than the hypothetical Initial Level, the investor receives a payment at maturity of \$1,092.50 per \$1,000 in principal amount of the notes, representing the Digital Return. However, in this case, the return on the notes would be less than the Percentage Change.

## U.S. Federal Tax Information

By purchasing the notes, each holder agrees (in the absence of a change in law, an administrative determination or a judicial ruling to the contrary) to treat each note as a pre-paid cash-settled derivative contract for U.S. federal income tax purposes. However, the U.S. federal income tax consequences of your investment in the notes are uncertain and the Internal Revenue Service could assert that the notes should be taxed in a manner that is different from that described in the preceding sentence. Please see the discussion (including the opinion of our counsel Morrison & Foerster LLP) in the product supplement under "Supplemental Tax Considerations—Supplemental U.S. Federal Income Tax Considerations," which applies to the notes, except that the following disclosure supplements, and to the extent inconsistent supersedes, the discussion in the product supplement.

A "dividend equivalent" payment is treated as a dividend from sources within the United States and 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, the Internal Revenue Service has issued guidance that states that the U.S. Treasury Department and the Internal Revenue Service intend to amend the effective dates of the U.S. Treasury regulations to 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. Accordingly, non-United States 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 applicable Underlying Asset or the notes, and following such occurrence the notes could be treated as delta-one specified ELIs that are subject to withholding on dividend equivalent payments. Non-United States holders that enter, or have entered, into other transactions in respect of the applicable Underlying Asset 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 paying agent) would be entitled to withhold taxes without being required to pay any additional amounts with respect to amounts so withheld.

## Supplemental Plan of Distribution (Conflicts of Interest)

BMOCM will purchase the notes from us at a purchase price reflecting the commission set forth on the cover page of this pricing supplement. BMOCM has informed us that, as part of its distribution of the notes, it will reoffer the notes to other dealers who will sell them. Each such dealer, or each additional dealer engaged by a dealer to whom BMOCM reoffers the notes, will receive a commission from BMOCM, which will not exceed the commission set forth on the cover page. This commission includes a selling concession of up to 1.60% of the principal amount that we or one of our affiliates will pay to one or more dealers in connection with the distribution of the notes.

Certain dealers who purchased the notes for sale to certain fee-based advisory accounts may have foregone some or all of their selling concessions, fees or commissions. The public offering price for investors purchasing the notes in these accounts may be less than 100% of the principal amount, as set forth on the cover page of this document. Investors that hold their notes in these accounts may be charged fees by the investment advisor or manager of that account based on the amount of assets held in those accounts, including the notes.

We own, directly or indirectly, all of the outstanding equity securities of BMOCM, the agent for this offering. In accordance with FINRA Rule 5121, BMOCM may not make sales in this offering to any of its discretionary accounts without the prior written approval of the customer.

You should not construe the offering of any of the notes as a recommendation of the merits of acquiring an investment linked to the applicable Underlying Asset or as to the suitability of an investment in the notes.

BMOCM may, but is not obligated to, make a market in the notes. BMOCM will determine any secondary market prices that it is prepared to offer in its sole discretion.

We may use this final pricing supplement in the initial sale of the notes. In addition, BMOCM or another of our affiliates may use this pricing supplement in market-making transactions in any notes after their initial sale. Unless BMOCM or we inform you otherwise in the confirmation of sale, this final pricing supplement is being used by BMOCM in a market-making transaction. P-9

For a period of approximately three months following issuance of the notes, the price, if any, at which we or our affiliates would be willing to buy the notes from investors, and the value that BMOCM may also publish for the notes through one or more financial information vendors and which could be indicated for the notes on any brokerage account statements, will reflect a temporary upward adjustment from our applicable estimated value of the notes that would otherwise be determined and applicable at that time. This temporary upward adjustment represents a portion of (a) the hedging profit that we or our affiliates expect to realize over the term of the notes and (b) the underwriting discount and selling concessions paid in connection with this offering. The amount of this temporary upward adjustment will decline to zero on a straight-line basis over the three-month period.

Additional Information Relating to the Estimated Initial Value of the Notes

Our estimated initial value of each of the notes that is set forth on the cover page of this final pricing supplement equals the sum of the values of the following hypothetical components:

a fixed-income debt component with the same tenor as the notes, valued using our internal funding rate for structured notes; and

 $\cdot$ one or more derivative transactions relating to the economic terms of the notes.

The internal funding rate used in the determination of the initial estimated value generally represents a discount from the credit spreads for our conventional fixed-rate debt. The value of these derivative transactions are derived from our internal pricing models. These models are based on factors such as the traded market prices of comparable derivative instruments and on other inputs, which include volatility, dividend rates, interest rates and other factors. As a result, the estimated initial value of each of the notes on the Pricing Date was determined based on market conditions at that time.

## The Underlying Assets

All disclosures contained in this pricing supplement regarding the Underlying Assets, including, without limitation, their make-up, method of calculation, and changes in their components, have been derived from publicly available sources. The information reflects the policies of, and is subject to change by, the applicable Index Sponsor. The Index Sponsors, who own the copyright and all other rights to the applicable Underlying Asset, have no obligation to continue to publish, and may discontinue publication of, the Underlying Assets. The consequences of an Index Sponsor discontinuing publication of an Underlying Asset are discussed in the section of the product prospectus supplement entitled "General Terms of the Notes—Unavailability of the Level of the Underlying Asset on a Valuation Date." Neither we nor BMO Capital Markets Corp. accepts any responsibility for the calculation, maintenance or publication of the Underlying Asset or any successor index.

#### The S&P 500® Index

The S&P 500<sup>®</sup> Index is intended to provide an indication of the pattern of common stock price movement. The calculation of the level of this Underlying Asset 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 chooses companies for inclusion in the Underlying Asset 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 S&P uses as an assumed model for the composition of the total market. Relevant criteria employed by S&P 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. Eleven main groups of companies comprise the Underlying Asset, with the approximate percentage of the market capitalization of the Underlying Asset included in each group as of January 31, 2017, indicated in parentheses: Consumer Discretionary (12.30%); Consumer Staples (9.30%); Energy (7.20%); Financials (14.60%); Health Care (13.70%); Industrials (10.20%); Information Technology (21.30%); Materials (2.90%); Real Estate (2.80%); Telecommunication Services (2.50%); and Utilities (2.50%). S&P from time to time, in its sole discretion, may add companies to, or delete companies from, the Underlying Asset to achieve the objectives stated above.

S&P calculates the Underlying Asset by reference to the prices of the constituent stocks of the Underlying Asset 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 Underlying Asset constituent stocks and received the dividends paid on those stocks.

#### Computation of the S&P 500<sup>®</sup> Index

While S&P currently employs the following methodology to calculate the S&P 500<sup>®</sup> Index, no assurance can be given that S&P 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 S&P 500<sup>®</sup> Index 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, S&P began shifting the S&P 500<sup>®</sup> Index halfway from a market capitalization weighted formula to a float-adjusted formula, before moving the S&P 500<sup>®</sup> Index to full float adjustment on September 16, 2005. S&P's criteria for selecting stocks for the S&P 500<sup>®</sup> Index did not change with the shift to float adjustment. However, the adjustment affects each company's weight in the S&P 50<sup>®</sup> Index.

Under float adjustment, the share counts used in calculating the S&P 500<sup>®</sup> Index 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 S&P 5@OIndex. 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. P-11

Treasury stock, stock options, restricted shares, 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, S&P 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, S&P 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, S&P calculates the weighted average IWF for each stock using the proportion of the total company market capitalization of each share class as weights.

The S&P 500<sup>®</sup> Index is calculated using a base-weighted aggregate methodology. The level of the S&P 500<sup>®</sup> Index 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 S&P 500<sup>®</sup> Index 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 S&P 500<sup>®</sup> Index, it serves as a link to the original base period level of the S&P 500<sup>®</sup> Index. The index divisor keeps the S&P 500<sup>®</sup> Index comparable over time and is the manipulation point for all adjustments to the S&P 500<sup>®</sup> Index, 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 S&P 500<sup>®</sup> Index, and do not require index divisor adjustments.

To prevent the level of the S&P 500<sup>®</sup> Index from changing due to corporate actions, corporate actions which affect the total market value of the S&P 500<sup>®</sup> Index require an index divisor adjustment. By adjusting the index divisor for the change in market value, the level of the S&P 500<sup>®</sup> Index remains constant and does not reflect the corporate actions of individual companies in the S&P 500<sup>®</sup> Index. Index divisor adjustments are made after the close of trading and after the calculation of the S&P 500<sup>®</sup> Index 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. 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% due to a company's acquisition of another company in the S&P 50% Index are made as soon as reasonably possible. All other 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.

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Changes in IWFs of more than five percentage points caused by corporate actions (such as merger and acquisition activity, restructurings, or spinoffs) will be made as soon as reasonably possible. Other changes in IWFs will be made annually when IWFs are reviewed.

## License Agreement

We and S&P have entered into a non-exclusive license agreement providing for the license to us and certain of our affiliates, in exchange for a fee, of the right to use the S&P 500<sup>®</sup> Index, in connection with certain securities, including the notes. The S&P 500<sup>®</sup> Index is owned and published by S&P.

The license agreement between S&P and us provides that the following language must be set forth in this pricing supplement:

The notes are not sponsored, endorsed, sold or promoted by S&P Dow Jones Indices LLC, Dow Jones, Standard and Poor's Financial Services LLC or any of their respective affiliates (collectively, "S&P Dow Jones Indices"). S&P Dow Jones Indices make no representation or warranty, express or implied, to the holders of the notes or any member of the public regarding the advisability of investing in securities generally or in the notes particularly or the ability of the Index to track general market performance. S&P Dow Jones Indices' only relationship to us with respect to the Index is the licensing of the Index and certain trademarks, service marks and/or trade names of S&P Dow Jones Indices and/or its third party licensors. The Index is determined, composed and calculated by S&P Dow Jones Indices without regard to us or the notes. S&P Dow Jones Indices have no obligation to take our needs or the needs of holders of the notes into consideration in determining, composing or calculating the Index. S&P Dow Jones Indices are not responsible for and have not participated in the determination of the prices, and amount of the notes or the timing of the issuance or sale of the notes or in the determination or calculation of the equation by which the notes are to be converted into cash. S&P Dow Jones Indices have no obligation or liability in connection with the administration, marketing or trading of the notes. There is no assurance that investment products based on the Index will accurately track index performance or provide positive investment returns. S&P Dow Jones Indices LLC and its subsidiaries are not investment advisors. Inclusion of a security or futures contract within an index is not a recommendation by S&P Dow Jones Indices to buy, sell, or hold such security or futures contract, nor is it considered to be investment advice. Notwithstanding the foregoing, CME Group Inc. and its affiliates may independently issue and/or sponsor financial products unrelated to the notes currently being issued by us, but which may be similar to and competitive with the notes. In addition, CME Group Inc. and its affiliates may trade financial products which are linked to the performance of the Index. It is possible that this trading activity will affect the value of the notes.

S&P DOW JONES INDICES DO NOT GUARANTEE THE ADEOUACY, ACCURACY, TIMELINESS AND/OR THE COMPLETENESS OF THE INDEX 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 TO ANY DAMAGES OR LIABILITY FOR ANY ERRORS, OMISSIONS, OR DELAYS THEREIN. S&P DOW JONES INDICES MAKE NO EXPRESS OR IMPLIED WARRANTIES, AND EXPRESSLY DISCLAIMS ALL WARRANTIES, OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE OR AS TO RESULTS TO BE OBTAINED BY US, HOLDERS OF THE NOTES, OR ANY OTHER PERSON OR ENTITY FROM THE USE OF THE INDEX OR WITH RESPECT TO ANY DATA RELATED THERETO. WITHOUT LIMITING ANY OF THE FOREGOING, IN NO EVENT WHATSOEVER SHALL S&P DOW JONES INDICES BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, PUNITIVE, OR CONSEQUENTIAL DAMAGES INCLUDING BUT NOT LIMITED TO, LOSS OF PROFITS, TRADING LOSSES, LOST TIME OR GOODWILL, EVEN IF THEY HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, WHETHER IN CONTRACT, TORT, STRICT LIABILITY, OR OTHERWISE. THERE ARE NO THIRD PARTY BENEFICIARIES OF ANY AGREEMENTS OR ARRANGEMENTS BETWEEN S&P DOW JONES INDICES AND US, OTHER THAN THE LICENSORS OF S&P DOW JONES INDICES.

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endorsed, sold or promoted by S&P and S&P makes no representation regarding the advisability of investing in the notes. P-13

## The Russell 2000® Index

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

#### Selection of Stocks Comprising the RTY

All companies eligible for inclusion in the RTY must be classified as a U.S. company under FTSE Russell's country-assignment methodology. If a company is incorporated, has a stated headquarters location, and trades in the same country (American Depositary Receipts and American Depositary Shares are not eligible), then the company is assigned to its country of incorporation. If any of the three factors are not the same, FTSE Russell defines three Home Country Indicators ("HCIs"): country of incorporation, country of headquarters, and country of the most liquid exchange (as defined by a two-year average daily dollar trading volume) ("ADDTV") from all exchanges within a country. Using the HCIs, FTSE Russell compares the primary location of the company's assets with the three HCIs. If the primary location of its assets matches any of the HCIs, then the company is assigned to the primary location of its assets. If there is insufficient information to determine the country in which the company's assets are primarily located, FTSE Russell will use the primary country from which the company's revenues are primarily derived for the comparison with the three HCIs in a similar manner. FTSE Russell uses the average of two years of assets or revenues data to reduce potential turnover. If conclusive country details cannot be derived from assets or revenues data, FTSE Russell will assign the company to the country of its headquarters, which is defined as the address of the company's principal executive offices, unless that country is a Benefit Driven Incorporation "BDI" country, in which case the company will be assigned to the country of its most liquid stock exchange. BDI countries include: Anguilla, Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, Bermuda, Bonaire, British Virgin Islands, Cayman Islands, Channel Islands, Cook Islands, Curacao, Faroe Islands, Gibraltar, Guernsey, Isle of Man, Jersey, Liberia, Marshall Islands, Panama, Saba, Sint Eustatius, Sint Maarten, and Turks and Caicos Islands. For any companies incorporated or headquartered in a U.S. territory, including countries such as Puerto Rico, Guam, and U.S. Virgin Islands, a U.S. HCI is assigned.

All securities eligible for inclusion in the RTY must trade on a major U.S. exchange. Bulletin board, pink sheets, and over-the-counter ("OTC") traded securities are not eligible for inclusion. Stocks must have a closing price at or above \$1.00 on their primary exchange on the last trading day in July to be eligible for inclusion during annual reconstitution. However, in order to reduce unnecessary turnover, if an existing member's closing price is less than \$1.00 on the last day of July, it will be considered eligible if the average of the daily closing prices (from its primary exchange) during the month of July is equal to or greater than \$1.00. Initial public offerings must have a closing price at or above \$1.00 on the last day of their eligibility period in order to qualify for index inclusion. If an existing stock does not trade on the "rank day" (typically the last trading day in July but a confirmed timetable is announced each spring), but does have a closing price at or above \$1.00 on another eligible U.S. exchange, that stock will be eligible for inclusion. Companies with a total market capitalization of less than \$30 million are not eligible for the RTY. Similarly, companies with only 5% or less of their shares available in the marketplace are not eligible for the RTY.

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

## RTY.

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

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

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The following tables set forth the quarter-end high and low closing levels for each Underlying Asset from the first quarter of 2009 through the Pricing Date.

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

Closing Levels of the S&P 500<sup>®</sup> Index

	High	Low
2008 First Quarter	1,447.16	1,273.37
Second Quarter	1,426.33	1,278.38
Third Quarter		1,106.39
Fourth Quarter	1,161.06	752.44
2009 First Quarter	934.70	676.53
Second Quarter	946.21	811.08
Third Quarter	1,071.66	879.13
Fourth Quarter		1,025.21
	,	,
2010First Quarter	1,174.17	1,056.74
Second Quarter	1,217.28	1,030.71
Third Quarter	1,148.67	1,022.58
Fourth Quarter	1,259.78	1,137.03
2011 First Quarter	1,343.01	1,256.88
Second Quarter		1,265.42
Third Quarter	1,353.22	1,119.46
Fourth Quarter	1,285.09	1,099.23
2012First Quarter	1,416.51	1,277.06
Second Quarter		1,278.04
Third Quarter		1,334.76
Fourth Quarter		1,353.33
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2013 First Quarter	1,569.19	1,457.15
Second Quarter	1,669.16	1,541.61
Third Quarter	1,725.52	1,614.08
Fourth Quarter	1,848.36	1,655.45
2014First Quarter	1,878.04	1,741.89
Second Quarter		1,815.69
Third Quarter		1,909.57
Fourth Quarter		1,862.49
	)	,
2015 First Quarter	2,117.39	1,992.67
Second Quarter		2,057.64
	,	,

Explanation of Responses:

Third Quarter	2,128.28 1,867.61
Fourth Quarter	2,109.79 1,923.82
2016First Quarter	2,063.95 1,829.08
Second Quarter	2,119.12 2,000.54
Third Quarter	2,190.15 2,088.55
Fourth Quarter	2,271.72 2,085.18

2017 First Quarter (through the Pricing Date) 2,365.38 2,257.83

Closing Levels of the Russell 2000<sup>®</sup> Index

	High	Low
2008 First Quarter	753.548	643.966
Second Quarter	763.266	686.073
Third Quarter	754.377	657.718
Fourth Quarter	671.590	385.308
2009 First Quarter	514.710	343.260
Second Quarter	531.680	429.158
Third Quarter	620.695	479.267
Fourth Quarter	634.072	562.395
2010First Quarter	690.303	586.491
Second Quarter	741.922	609.486
Third Quarter	677.642	590.034
Fourth Quarter	792.347	669.450
2011 First Quarter	843.549	773.184
Second Quarter	865.291	777.197
Third Quarter	858.113	643.421
Fourth Quarter	765.432	609.490
2012 First Quarter	846.129	747.275
Second Quarter	840.626	737.241
Third Quarter	864.697	767.751
Fourth Quarter	852.495	769.483
2013 First Quarter	953.068	872.605
Second Quarter	999.985	901.513
Third Quarter	1,078.409	989.535
Fourth Quarter	1,163.637	1,043.459
2014First Quarter	1,208.651	1,093.594
Second Quarter	1,192.964	1,095.986
Third Quarter	1,208.150	1,101.676
Fourth Quarter	1,219.109	1,049.303
2015 First Quarter	1,266.373	1,154.709
Second Quarter	1,295.799	1,215.417
Third Quarter	1,273.328	1,083.907
Fourth Quarter	1,204.159	1,097.552
2016First Quarter	1,114.028	953.715
Second Quarter	1,188.954	1,089.646
Third Quarter	1,263.438	1,139.453
Fourth Quarter	1,388.073	1,156.885

2017 First Quarter (through the Pricing Date) 1,410.344 1,345.744

## Validity of the Notes

In the opinion of Osler, Hoskin & Harcourt LLP, the issue and sale of the notes has been duly authorized by all necessary corporate action of the Bank in conformity with the Senior Indenture, and when this pricing supplement has been attached to, and duly notated on, the master note that represents the notes, the notes will have been validly executed and issued and, to the extent validity of the notes is a matter governed by the laws of the Province of Ontario, or the laws of Canada applicable therein, and will be valid obligations of the Bank, subject to the following limitations (i) the enforceability of the Senior Indenture may be limited by the Canada Deposit Insurance Corporation Act (Canada), the Winding-up and Restructuring Act (Canada) and bankruptcy, insolvency, reorganization, receivership, moratorium, arrangement or winding-up laws or other similar laws affecting the enforcement of creditors' rights generally; (ii) the enforceability of the Senior Indenture may be limited by equitable principles, including the principle that equitable remedies such as specific performance and injunction may only be granted in the discretion of a court of competent jurisdiction; (iii) pursuant to the Currency Act (Canada) a judgment by a Canadian court must be awarded in Canadian currency and that such judgment may be based on a rate of exchange in existence on a day other than the day of payment; and (iv) the enforceability of the Senior Indenture will be subject to the limitations contained in the Limitations Act, 2002 (Ontario), and such counsel expresses no opinion as to whether a court may find any provision of the Senior Debt Indenture to be unenforceable as an attempt to vary or exclude a limitation period under that Act. This opinion is given as of the date hereof and is limited to the laws of the Provinces of Ontario and the federal laws of Canada applicable thereto. In addition, this opinion is subject to customary assumptions about the Trustee's authorization, execution and delivery of the Indenture and the genuineness of signatures and certain factual matters, all as stated in the letter of such counsel dated July 2, 2014, which has been filed as Exhibit 5.1 to Bank of Montreal's Form 6-K filed with the SEC on July 3, 2014.

In the opinion of Morrison & Foerster LLP, when the pricing supplement has been attached to, and duly notated on, the master note that represents the notes, and the notes have been issued and sold as contemplated by the prospectus supplement and the prospectus, the notes will be valid, binding and enforceable obligations of Bank of Montreal, entitled to the benefits of the Indenture, subject to applicable bankruptcy, insolvency and similar laws affecting creditors' rights generally, concepts of reasonableness and equitable principles of general applicability (including, without limitation, concepts of good faith, fair dealing and the lack of bad faith). This opinion is given as of the date hereof and is limited to the laws of the State of New York. This opinion is subject to customary assumptions about the Trustee's authorization, execution and delivery of the Indenture and the genuineness of signatures and to such counsel's reliance on the Bank and other sources as to certain factual matters, all as stated in the legal opinion dated July 2, 2014, which has been filed as Exhibit 5.2 to the Bank's Form 6-K filed on July 3, 2014.