ESSEX INVESTMENT MANAGEMENT CO LLC Form SC 13G May 11, 2005

## **UNITED STATES**

## SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

# **SCHEDULE 13G**

Under the Securities Exchange Act of 1934

(Amendment No. \_\_)\*

	MARCHEX INC				
(COMMON)	(C	OMMON)			

56624R108

04/06/2005

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

"Rule 13d-1(b)

x Rule 13d-1(c)			
" Rule 13d-1(d)			

The information required in the remainder of this cover page shall not be deemed to be filed for the purpose of Section 18 of the Securities Exchange Act of 1934 ( Act ) or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

<sup>\*</sup> The remainder of this cover page shall be filled out for a reporting person s initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

CUSIP No. 56624R108

1. Names of Reporting Persons.
I.R.S. Identification Nos. of above persons (entities only)
Essex Investment Management Co., LLC #04-3409177  2. Check the Appropriate Box if a Member of a Group (See Instructions)
(a) "
(b) " 3. SEC Use Only
4. Citizenship or Place of Organization
Massachussetss 5. Sole Voting Power:
1,149,757
Number of 6. Shared Voting Power:
Beneficially
Owned by Table 2 to 2 t
7. Sole Dispositive Power: Each
Reporting  1,225,157  Person
8. Shared Dispositive Power:
0 9. Aggregate Amount Beneficially Owned by Each Reporting Person
1,225,157  10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)

11. Percent of Class Represented by Amount in Row (9)

4.81%

12. Type of Reporting Person (See Instructions)

1A

#### INSTRUCTIONS FOR SCHEDULE 13G

#### **Instructions for Cover Page**

- ".(1) Names and I.R.S. Identification Numbers of Reporting Persons. Furnish the full legal name of each person for whom the report is filed. i.e., each person required to sign the schedule itself.including each member of a group. Do not include the name of a person required to be identified in the report but who is not a reporting person. Reporting persons that are entities are also requested to furnish their I.R.S. identification numbers, although disclosure of such numbers is voluntary, not mandatory (see .SPECIAL INSTRUCTIONS FOR COMPLYING WITH SCHEDULE 13G. below).
- ".(2) If any of the shares beneficially owned by a reporting person are held as a member of a group and that membership is expressly affirmed, please check row 2(a). If the reporting person disclaims membership in a group or describes a relationship with other persons but does not affirm the existence of a group, please check row 2(b) [unless it is a joint filing pursuant to Rule 13d-1(k)(1) in which case it may not be necessary to check row 2(b)].
- ".(3) The third row is for SEC internal use; please leave blank.
- (4) Citizenship or Place of Organization. Furnish citizenship if the named reporting person is a natural person. Otherwise, furnish place of organization.
- (5)-(9), (11) Aggregate Amount Beneficially Owned By Each Reporting Person, Etc.. Rows (5) through (9) inclusive, and (11) are to be completed in accordance with the provisions of Item 4 of Schedule 13G. All percentages are to be rounded off to the nearest tenth (one place after decimal point).
- ".(10) Check if the aggregate amount reported as beneficially owned in row (9) does not include shares as to which beneficial ownership is disclaimed pursuant to Rule 13d-4 (17 CFR 240.13d-4] under the Securities Exchange Act of 1934.
- ".(12) Type of Reporting Person. Please classify each .reporting person. according to the following breakdown (see Item 3 of Schedule 13G) and place the appropriate symbol on the form:

Category	Symbol
	<del></del>
Broker Dealer	BD
Bank	BK
Insurance Company	IC
Investment Company	IV
Investment Adviser	IA
Employee Benefit Plan, Pension Fund, or Endowment Fund	EP
Parent Holding Company/Control Person	HC

Savings Association	SA
Church Plan	CP
Corporation	CO
Partnership	PN
Individual	IN
Other	00

Notes:

Attach as many copies of the second part of the cover page as are needed, one reporting person per page.

Filing persons may, in order to avoid unnecessary duplication, answer items on the schedules (Schedule 13D, 13G or 14D-1) by appropriate cross references to an item or items on the cover page(s). This approach may only be used where the cover page item or items provide all the disclosure required by the schedule item. Moreover, such a use of a cover page item will result in the item becoming a part of the schedule and accordingly being considered as .filed. for purposes of Section 18 of the Securities Exchange Act or otherwise subject to the liabilities of that section of the Act.

Reporting persons may comply with their cover page filing requirements by filing either completed copies of the blank forms available from the Commission, printed or typed facsimiles, or computer printed facsimiles, provided the documents filed have identical formats to the forms prescribed in the Commission.s regulations and meet existing Securities Exchange Act rules as to such matters as clarity and size (Securities Exchange Act Rule 12b-12).

#### SPECIAL INSTRUCTIONS FOR COMPLYING WITH SCHEDULE 13G

Under Sections 13(d), 13(g), and 23 of the Securities Exchange Act of 1934 and the rules and regulations thereunder, the Commission is authorized to solicit the information required to be supplied by this schedule by certain security holders of certain issuers.

Disclosure of the information specified in this schedule is mandatory, except for I.R.S. identification numbers, disclosure of which is voluntary. The information will be used for the primary purpose of determining and disclosing the holdings of certain beneficial owners of certain equity securities. This statement will be made a matter of public record. Therefore, any information given will be available for inspection by any member of the public.

Because of the public nature of the information, the Commission can use it for a variety of purposes, including referral to other governmental authorities or securities self-regulatory organizations for investigatory purposes or in connection with litigation involving the Federal securities laws or other civil, criminal or regulatory statutes or provisions. I.R.S. identification numbers, if furnished, will assist the Commission in identifying security holders and, therefore, in promptly processing statements of beneficial ownership of securities.

Failure to disclose the information requested by this schedule, except for I.R.S. identification numbers, may result in civil or criminal action against the persons involved for violation of the Federal securities laws and rules promulgated thereunder.

## GENERAL INSTRUCTIONS

- A. Statements filed pursuant to Rule 13d-1(b) containing the information required by this schedule shall be filed not later than February 14 following the calendar year covered by the statement or within the time specified in Rules 13d-1(b)(2) and 13d-2(c). Statements filed pursuant to Rule 13d-1(c) shall be filed within the time specified in Rules 13d-1(c), 13d-2(b) and 13d-2(d). Statements filed pursuant to Rule 13d-1(d) shall be filed not later than February 14 following the calendar year covered by the statement pursuant to Rules 13d-1(d) and 13d-2(b).
- B. Information contained in a form which is required to be filed by rules under section 13(f) (15 U.S.C. 78m(f)) for the same calendar year as that covered by a statement on this schedule may be incorporated by reference in response to any of the items of this schedule. If such information is incorporated by reference in this schedule, copies of the relevant pages of such form shall be filed as an exhibit to this schedule.
- C. The item numbers and captions of the items shall be included but the text of the items is to be omitted. The answers to the items shall be so prepared as to indicate clearly the coverage of the items without referring to the text of the items. Answer every item. If an item is inapplicable or the answer is in the negative, so state.

## **Item 1.** (a) Name of Issuer:

Marchex Inc. Class B.

(b) Address of Issuer s Principal Executive Offices:

413 Pine Street, Suite 500 Seattle, WA 98101

**Item 2.** (a) Name of Person Filing:

ESSEX INVESTMENT MANAGEMENT CO., LLC

(b) Address of Principal Business Office:

125 High St, 29th Floor, Boston, MA 02110

(c) Citizenship

U.S.A

(d) Title of Class of Securities:

Common

(e) CUSIP Number

56624R108

#### Item 3. If this statement is filed pursuant to §§240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a:

- (a) "Broker or dealer registered under section 15 of the Act (15 U.S.C. 780).
- (b) "Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c).
- (c) "Insurance company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c).
- (d) "Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C 80a-8).
- (e) x An investment adviser in accordance with §240.13d-1(b)(1)(ii)(E);
- (f) "An employee benefit plan or endowment fund in accordance with §240.13d-1(b)(1)(ii)(F);
- (g) " A parent holding company or control person in accordance with §240.13d-1(b)(1)(ii)(G);
- (h) "A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);
- (i) A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3);
- (j) "Group, in accordance with §240.13d-1(b)(1)(ii)(J).

#### Item 4. Ownership.

Provide the following information regarding the aggregate number and percentage of the class of securities of the issuer identified in Item 1.

- (a) Amount beneficially owned: 1,221,157
- (b) Percent of class: 4.81%
- (c) Number of shares as to which the person has:
  - (i) Sole power to vote or to direct the vote: 1,149,757
  - (ii) Shared power to vote or to direct the vote: 0
  - (iii) Sole power to dispose or to direct the disposition of: 1,221,157
  - (iv) Shared power to dispose or to direct the disposition of: 0

*Instruction.* For computations regarding securities which represent a right to acquire an underlying security *see* §240.13d-3(d)(1).

#### Item 5. Ownership of Five Percent or Less of a Class

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following x.

Instruction: Dissolution of a group requires a response to this item.

#### Item 6. Ownership of More than Five Percent on Behalf of Another Person.

If any other person is known to have the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, such securities, a statement to that effect should be included in response to this item and, if such interest relates to more than five percent of the class, such person should be identified. A listing of the shareholders of an investment company registered under the Investment Company Act of 1940 or the beneficiaries of employee benefit plan, pension fund or endowment fund is not required.

# Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company

If a parent holding company has filed this schedule, pursuant to Rule 13d-1(b)(ii)(G), so indicate under Item 3(g) and attach an exhibit stating the identity and the Item 3 classification of the relevant subsidiary. If a parent holding company has filed this schedule pursuant to Rule 13d-1(c) or Rule 13d-1(d), attach an exhibit stating the identification of the relevant subsidiary.

#### Item 8. Identification and Classification of Members of the Group

If a group has filed this schedule pursuant to \$240.13d-1(b)(1)(ii)(J), so indicate under Item 3(j) and attach an exhibit stating the identity and Item 3 classification of each member of the group. If a group has filed this schedule pursuant to \$240.13d-1(c) or \$240.13d-1(d), attach an exhibit stating the identity of each member of the group.

## Item 9. Notice of Dissolution of Group

Notice of dissolution of a group may be furnished as an exhibit stating the date of the dissolution and that all further filings with respect to transactions in the security reported on will be filed, if required, by members of the group, in their individual capacity. See Item 5.

#### Item 10. Certification

(a) The following certification shall be included if the statement is filed pursuant to §240.13d-1(b):

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were acquired and are held in the ordinary course of business and were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

(b) The following certification shall be included if the statement is filed pursuant to §240.13d-1(c):

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

#### **SIGNATURE**

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Date

/s/ Michael S. McCarthy

Signature
Michael S. McCarthy

Sr. V.P & Director of Operations

Name/Title

The original statement shall be signed by each person on whose behalf the statement is filed or his authorized representative. If the statement is signed on behalf of a person by his authorized representative other than an executive officer or general partner of the filing person, evidence of the representative authority to sign on behalf of such person shall be filed with the statement, provided, however, that a power of attorney for this purpose which is already on file with the Commission may be incorporated by reference. The name and any title of each person who signs the statement shall be typed or printed beneath his signature.

*NOTE*: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. *See* §240.13d-7 for other parties for whom copies are to be sent.

## Attention: Intentional misstatements or omissions of fact constitute Federal criminal violations (See 18 U.S.C. 1001)

irst published by the Index Sponsor (without regard to any subsequent corrections or revisions of that first published level) for the month that is one year prior to the month used to determine CPI<sub>A</sub>.

The Spread is 1.00%.

## Payment at Maturity

On the maturity date, you will be paid the principal amount of the notes and any accrued and unpaid interest on the notes, subject to our credit risk. See "Risk Factors—Payments on the notes are subject to our credit risk, and changes in our credit ratings are expected to affect the value of the notes" above.

Regardless of the amounts of the interest payable during each interest period over the term of the notes, you will receive your principal amount at maturity, assuming that we are otherwise able to pay our debts on the maturity date.

Discontinuance of the CPI; Alteration of Method of Calculation

If the CPI is permanently cancelled or is not calculated and announced by the BLS, but (a) is calculated and announced by a successor sponsor (the "Successor Sponsor") acceptable to the calculation agent, or (b) is replaced by a successor index (the "Successor Index") using, in the determination of the calculation agent, the same, a substantially similar, or an otherwise appropriate formula for the method of calculation as used in the calculation of the CPI, then the CPI for purposes of the notes will be deemed to be replaced by the index so calculated and announced by that Successor Sponsor or that Successor Index, as the case may be. If the calculation agent selects a Successor Index, the calculation agent will cause written notice to be promptly furnished to the trustee, to us, and to the holders of the notes.

If the CPI is rebased or similarly adjusted at any time (as rebased or adjusted, the "Rebased Index"), the calculation agent will determine the CPI and the monthly interest rates using the Rebased Index.

If the CPI is permanently cancelled or is not calculated and announced by a Successor Sponsor or replaced by a Successor Index, then the calculation agent will notify the trustee, us and the holders of the notes and will calculate the appropriate levels of the CPI in a commercially reasonable manner.

Notwithstanding these alternative arrangements, discontinuance of the publication of the CPI may adversely affect trading in the notes.

Role of the Calculation Agent

The calculation agent has the sole discretion to make all determinations regarding the notes, including determinations regarding the amount of each CPI Inflation Adjustment and each interest payment, Successor Indices, Rebased Indices, and business days. Absent manifest error, all determinations of the calculation agent will be final and binding on you and us, without any liability on the part of the calculation agent.

We have initially appointed our subsidiary, MLCS, as the calculation agent, but we may change the calculation agent at any time without notifying you.

Same-Day Settlement and Payment

The notes will be delivered in book-entry form only through The Depository Trust Company against payment by purchasers of the notes in immediately available funds. We will make payments of the principal amount and each interest payment in immediately available funds so long as the notes are maintained in book-entry form.

## **Events of Default and Rights of Acceleration**

If an event of default (as defined in the Senior Indenture) occurs and is continuing, holders of the notes may accelerate the maturity of the notes, as described under "Description of Debt Securities—Events of Default and Rights of Acceleration" in the prospectus. Upon an event of default, you will be entitled to receive only your principal amount, and accrued and unpaid interest, if any, through the acceleration date. In case of an event of default, the notes will not bear a default interest rate. If a bankruptcy proceeding is commenced in respect of us, your claim may be limited, under the U.S. Bankruptcy Code, to the original public offering price of the notes.

Listing

The notes will not be listed on any securities exchange.

#### THE Consumer Price INDEX

#### General

We have obtained all information regarding the CPI contained in this pricing supplement, including its make-up, method of calculation and changes in its components, from publicly available sources. This information reflects the policies of, and is subject to change by, the BLS. The BLS is not involved in the offering of the notes in any way and has no obligation to consider your interests as a holder of the notes. The BLS has no obligation to continue to publish the CPI, and may discontinue publication of the CPI at any time in its sole discretion. The consequences of the BLS discontinuing publication of the CPI are described in the section entitled "Description of the Notes—Discontinuance of the CPI; Alteration of Method of Calculation." None of us, the calculation agent, or the selling agent assumes any responsibility for the calculation, maintenance, or publication of the CPI or any successor index, or the accuracy or completeness of any information relating to the CPI.

The CPI for purposes of the notes is the non-revised index of Consumer Prices for All Urban Consumers before seasonal adjustment, which is published monthly by the BLS. The BLS makes the majority of its consumer price index data and press releases publicly available immediately at the time of release. The CPI is published by the BLS on its internet website www.bls.gov/cpi/home.htm, and is currently available only for reference purposes on Bloomberg® using the symbol "CPURNSA <Index>". A schedule of the dates for upcoming releases of the CPI may be found at the Index Sponsor's internet website at www.bls.gov/schedule/news\_release/cpi.htm. Please note that any information available from these sources is not part of, nor should it be deemed to be incorporated into, this pricing supplement.

The CPI is a measure of prices paid by urban consumers in the U.S. for a fixed market basket of goods and services, including food, clothing, shelter, fuels, transportation, drugs, and charges for doctor and dentist services. User fees (such as water and sewer service) and sales and excise taxes paid by the consumer are included in determining consumer prices. Income taxes and investment items such as stocks, bonds, and life insurance are not included. The CPI includes expenditures by urban wage earners and clerical workers, professional, managerial and technical workers, the self-employed, short-term workers, the unemployed, retirees, and others not in the labor force. In calculating the CPI, prices for the various items are averaged together with weights that represent their importance in the spending of urban households in the U.S. The BLS periodically updates the contents of the market basket of goods and services and the weights assigned to the various items to take into account changes in consumer expenditure patterns. The CPI is expressed in relative terms in relation to a time base reference period for which the level is set at 100.000. The base reference period for the CPI is the 1982-1984 average. The CPI for a particular calendar month is published during the following month.

## **Historical Levels of the CPI**

Historical levels of the CPI are not an indication of the future levels of the CPI during the term of the notes. In the past, the CPI has experienced periods of volatility, and such volatility may occur in the future. Fluctuations and trends in the level of the CPI that have occurred in the past are not necessarily indicative, however, of fluctuations that may occur in the future. Holders of the notes will receive interest payments that will be affected by changes in the level of the CPI, and those changes may be significant.

The following table shows the historical monthly levels of the CPI from January 2008 through February 2018, as reported by the Index Sponsor and published on the Bloomberg® website, www.bloomberg.com, under the symbol "CPURNSA <Index>", as well as the percentage change of each monthly CPI level as compared to the CPI level of the prior year. We do not

make any representation or warranty as to the accuracy or completeness of the CPI data in the table below.

	2008		2009		2010		2011		2012	
	Level	% Change Year- Over-Year	Level	% Change Year- Over-Year	Level	% Change Year- Over-Year	Level	% Change Year- Over-Year	Level	% C Over
January	211.080	4.28029%	211.080	4.28029%	216.687	2.62571%	220.223	1.63185%	226.665	52.925
February	211.693	4.02656%	211.693	4.02656%	216.741	2.14333%	221.309	2.10758%	227.663	32.87
March	213.528	3.98146%	213.528	3.98146%	217.631	2.31396%	223.467	2.68160%	229.392	22.65
April	214.823	3.93689%	214.823	3.93689%	218.009	2.23645%	224.906	3.16363%	230.085	52.302
May	216.632	4.17554%	216.632	4.17554%	218.178	2.02099%	225.964	3.56865%	229.815	51.704
June	218.815	5.02179%	218.815	5.02179%	217.965	1.05335%	225.722	3.55883%	229.478	31.663
July	219.964	5.60012%	219.964	5.60012%	218.011	1.23519%	225.922	3.62872%	229.104	11.408
August	219.086	5.37186%	219.086	5.37186%	218.312	21.14810%	226.545	3.77121%	230.379	1.692
September	r218.783	4.93693%	218.783	4.93693%	218.439	1.14368%	226.889	3.86836%	231.407	71.991
October	216.573	3.65519%	216.573	3.65519%	218.711	1.17219%	226.421	3.52520%	231.317	72.162
November	212.425	1.06957%	212.425	1.06957%	218.803	1.14316%	226.230	3.39438%	230.221	11.764
December	210.228	0.09141%	210.228	0.09141%	219.179	1.49572%	225.672	2.96242%	229.601	11.74

	2013		2014		2015		2016		2017	
	Level	% Change Year- Over-Year	Level	% Change Year- Over-Year	Level	% Change Year- Over-Year	Levei	% Change Year- Over-Year	Level	% Ch Over-
January	230.280	1.59486%	233.916	1.57895%	233.707	-0.08935%	236.916	1.37309%	242.839	2.500
February	232.166	51.97792%	234.781	1.12635%	234.722	-0.02513%	237.111	1.01780%	243.603	2.737
March	232.773	31.47390%	236.293	1.51220%	236.119	-0.07364%	238.132	0.85254%	243.801	2.380
April	232.531	1.06309%	237.072	1.95286%	236.599	-0.19952%	239.261	1.12511%	244.524	2.199
May	232.945	51.36197%	237.900	2.12711%	237.805	-0.03993%	240.229	1.01932%	244.733	1.874
June	233.504	1.75442%	238.343	2.07234%	238.638	0.12377%	241.018	0.99733%	244.955	1.633
July	233.596	1.96068%	238.250	1.99233%	238.654	0.16957%	240.628	0.82714%	244.786	1.727
August	233.877	1.51837%	237.852	1.69961%	238.316	0.01951%	240.849	1.06287%	245.519	1.938
September	r234.149	1.18493%	238.031	1.65792%	237.945	-0.03613%	241.428	1.46378%	246.819	2.232
October	233.546	0.96361%	237.433	1.66434%	237.838	0.17057%	241.729	1.63599%	246.663	2.041
November	233.069	1.23707%	236.151	1.32235%	237.336	0.50180%	241.353	1.69254%	246.669	2.202
December	233.049	01.50174%	234.812	0.75649%	236.525	0.72952%	241.432	2.07462%	246.524	2.109

2018

Level % Change Year-Over-Year

January 247.8672.07051% February 248.9912.21180%

March April May

May June

July

August

September

16

October November December

The following graph sets forth, for the period from January 2008 to February 2018:

- the percentage change of the CPI for each calendar month, as compared to the same month in the prior fiscal year; and
- the percentage change described above added to the Spread of 1.00% and adjusted to reflect the minimum payable interest rate of 0.00%.

This graph is intended to demonstrate the impact of changes to the CPI and the impact of the Spread of 1.00%, the minimum interest rate of 0.00%. However, this graph is for purposes of illustration only. The actual interest rate on the notes for any interest period will depend on the actual levels of the CPI in the applicable calendar months.

Before investing in the notes, you should consult publicly available sources for the levels of the CPI.

#### SUPPLEMENTAL PLAN OF DISTRIBUTION—conflicts of interest

Our broker-dealer subsidiary, MLPF&S, will act as our selling agent in connection with the offering of the notes. The selling agent is a party to the Distribution Agreement described in the "Supplemental Plan of Distribution (Conflicts of Interest)" beginning on page S-24 of the accompanying prospectus supplement.

The selling agent will receive the compensation set forth on the cover page of this pricing supplement as to the notes sold through its efforts. We or one of our affiliates may pay varying selling concessions of up to 2.25% in connection with the distribution of the notes to other registered broker-dealers. Certain dealers who purchase the notes for sale to certain fee-based advisory accounts may forgo some or all of their selling concessions, fees, or commissions. The price to public for investors purchasing the notes in these accounts may be as low as \$970 (97.00%) per \$1,000 in principal amount of the notes.

The selling agent is a member of the Financial Industry Regulatory Authority, Inc. ("FINRA"). Accordingly, the offering of the notes will conform to the requirements of FINRA Rule 5121.

The selling agent is not acting as your fiduciary or advisor solely as a result of the offering of the notes, and you should not rely upon any communication from the selling agent in connection with the notes as investment advice or a recommendation to purchase the notes. You should make your own investment decision regarding the notes after consulting with your legal, tax, and other advisors.

The settlement of the notes will occur on March 27, 2018.

If you place an order to purchase the notes from MLPF&S, you are consenting to MLPF&S acting as a principal in effecting the transaction for your account. MLPF&S is acting as an underwriter in connection with this offering and will receive underwriting compensation from us.

The selling agent and any of our other broker-dealer affiliates, may use this pricing supplement, and the accompanying prospectus supplement and prospectus for offers and sales in secondary market transactions and market-making transactions in the notes. However, they are not obligated to engage in such secondary market transactions and/or market-making transactions. The selling agent may act as principal or agent in these transactions, and any such sales will be made at prices related to prevailing market conditions at the time of the sale.

At MLPF&S's discretion, for a short undetermined initial period after the issuance of the notes, MLPF&S may offer to buy the notes in the secondary market at a price that may exceed the initial estimated initial value of the notes. Any price offered by MLPF&S for the notes will be based on then-prevailing market conditions and other considerations, including the level of the CPI and the remaining term of the notes. However, none of us, MLPF&S or any of our other affiliates is obligated to purchase your notes at any price or at any time, and we cannot assure you that any party will purchase your notes at a price that equals or exceeds the initial estimated value of the notes.

Any price that MLPF&S may pay to repurchase the notes will depend upon then prevailing market conditions, our creditworthiness, and transaction costs. At certain times, this price may be higher than or lower than the initial estimated value of the notes.

No Prospectus (as defined in Directive 2003/71/EC (as amended, the ("Prospectus Directive")) will be prepared in connection with these notes. Accordingly, these notes may not be offered to the public in any member state of the EEA, and any purchaser of these notes who

subsequently sells any of these notes in any EEA member state must do so only in accordance with the requirements of the Prospectus Directive, as implemented in that member state.

The notes are not intended to be offered, sold or otherwise made available to, and should not be offered, sold or otherwise made available to, any retail investor in the EEA. For these purposes, the expression "offer" includes the communication in any form and by any means of sufficient information on the terms of the offer and the notes to be offered so as to enable an investor to decide to purchase or subscribe the notes, and a "retail investor" means a person who is one (or more) of: (a) a retail client, as defined in point (11) of Article 4(1) of Directive 2014/65/EU (as amended, "MiFID II"); or (b) a customer, within the meaning of Insurance Distribution Directive 2016/97/EU, as amended, where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or (c) not a qualified investor as defined in the Prospectus Directive. Consequently, no key information document required by Regulation (EU) No 1286/2014 (as amended, the "PRIIPs Regulation") for offering or selling the notes or otherwise making them available to retail investors in the EEA has been prepared, and therefore, offering or selling the notes or otherwise making them available to any retail investor in the EEA may be unlawful under the PRIIPs Regulation.

## STRUCTURING THE NOTES

The notes are our debt securities, the return on which is linked to the performance of the CPI. As is the case for all of our debt securities, including our market-linked notes, the economic terms of the notes reflect our actual or perceived creditworthiness at the time of pricing. In addition, because market-linked notes result in increased operational, funding and liability management costs to us, we typically borrow the funds under these notes at a rate that is more favorable to us than the rate that we might pay for a conventional fixed or floating rate debt security. This generally relatively lower internal funding rate, which is reflected in the economic terms of the notes, along with the fees and charges associated with market-linked notes, resulted in the initial estimated value of the notes at the time the terms of the notes are set and on the pricing date being less than their public offering price.

In order to meet our payment obligations on the notes, at the time we issue the notes, we may choose to enter into certain hedging arrangements (which may include call options, put options or other derivatives) with MLPF&S or one of its affiliates. The terms of these hedging arrangements are determined based upon terms provided by MLP&S and its affiliates, and take into account a number of factors, including our creditworthiness, interest rate movements, the volatility of the CPI, the tenor of the notes and the hedging arrangements. The economic terms of the notes and their initial estimated value depend in part on the terms of these hedging arrangements.

MLPF&S has advised us that the hedging arrangements will include hedging related charges, reflecting the costs associated with, and our affiliates' profit earned from, these hedging arrangements. Since hedging entails risk and may be influenced by unpredictable market forces, actual profits or losses from these hedging transactions may be more or less than this amount.

For further information, see "Risk Factors" beginning on page PS-9 of this pricing supplement.

## VALIDITY OF THE NOTES

In the opinion of McGuireWoods LLP, as counsel to BAC, when the trustee has made an appropriate entry on Schedule 1 to the Master Registered Global Senior Note, dated February 7, 2017 (the "Master Note") identifying the notes offered hereby as supplemental obligations thereunder in accordance with the instructions of BAC and the notes have been delivered against payment therefor as contemplated in this pricing supplement and the related prospectus supplement and prospectus, all in accordance with the provisions of the indenture governing the notes, such notes will be legal, valid and binding obligations of BAC, subject to the effect of applicable bankruptcy, insolvency (including laws relating to preferences, fraudulent transfers and equitable subordination), reorganization, moratorium and other similar laws affecting creditors' rights generally, and to general principles of equity. This opinion is given as of the date hereof and is limited to the laws of the State of New York and the Delaware General Corporation Law (including the statutory provisions, all applicable provisions of the Delaware Constitution and reported judicial decisions interpreting the foregoing) as in effect on the date hereof. In addition, this opinion is subject to the assumption that the trustee's certificate of authentication of the Master Note has been manually signed by one of the trustee's authorized officers and to customary assumptions about the trustee's authorization, execution and delivery of the indenture governing the notes, the validity, binding nature and enforceability of the indenture governing the notes with respect to the trustee, the legal capacity of natural persons, the genuineness of signatures, the authenticity of all documents submitted to McGuireWoods LLP as originals, the conformity to original documents of all documents submitted to McGuireWoods LLP as copies thereof, the authenticity of the originals of such copies and certain factual matters, all as stated in the letter of McGuireWoods LLP dated January 13, 2017, which has been filed as an exhibit to BAC's Current Report on Form 8-K dated January 13, 2017.

#### U.S. FEDERAL INCOME TAX SUMMARY

The following summary of the material U.S. federal income tax considerations of the acquisition, ownership, and disposition of the notes supplements the discussions under "U.S. Federal Income Tax Considerations" in the accompanying prospectus and under "U.S. Federal Income Tax Considerations" in the accompanying prospectus supplement and is not exhaustive of all possible tax considerations. This summary is based upon the Code, regulations promulgated under the Code by the U.S. Treasury Department ("Treasury") (including proposed and temporary regulations), rulings, current administrative interpretations and official pronouncements of the Internal Revenue Service ("IRS"), and judicial decisions, all as currently in effect and all of which are subject to differing interpretations or to change, possibly with retroactive effect. No assurance can be given that the IRS would not assert, or that a court would not sustain, a position contrary to any of the tax consequences described below. This summary does not include any description of the tax laws of any state or local governments, or of any foreign government, that may be applicable to a particular holder.

This summary is directed solely to U.S. Holders and Non-U.S. Holders that, except as otherwise specifically noted, will purchase the notes upon original issuance and will hold the notes as capital assets within the meaning of Section 1221 of the Code, which generally means property held for investment, and that are not excluded from the discussion under "U.S. Federal Income Tax Considerations" in the accompanying prospectus. This summary assumes that the issue price of the notes, as determined for U.S. federal income tax purposes, equals the principal amount thereof.

You should consult your own tax advisor concerning the U.S. federal income tax consequences to you of acquiring, owning, and disposing of notes, as well as any tax consequences arising under the laws of any state, local, foreign, or other tax jurisdiction and the possible effects of changes in U.S. federal or other tax laws.

#### Tax Characterization of the Notes

There are no statutory provisions, regulations, published rulings, or judicial decisions addressing the characterization, for U.S. federal income tax purposes, of the notes or other instruments with terms substantially the same as the notes. However, although the matter is not free from doubt, under current law, each note should be treated as a debt instrument for U.S. federal income tax purposes and this summary assumes such treatment is proper and will be respected. We currently intend to treat the notes as debt instruments for U.S. federal income tax purposes and, where required, intend to file information returns with the IRS in accordance with such treatment, in the absence of any change or clarification in the law, by regulation or otherwise, requiring a different characterization of the notes. You should be aware, however, that the IRS is not bound by our characterization of the notes as indebtedness and the IRS could possibly take a different position as to the proper characterization of the notes for U.S. federal income tax purposes, then the U.S. federal income tax treatment of the purchase, ownership, and disposition of the notes could differ materially from the treatment discussed below. For example, the timing and character of income, gain, or loss recognized in respect of the notes could differ materially from the timing and character of income, gain, or loss recognized in respect of the notes had the notes in fact been treated as debt instruments for U.S. federal income tax purposes.

## U.S. Holders

If the notes are properly characterized as contingent payment debt instruments for U.S. federal income tax purposes, such notes generally will be subject to U.S. Treasury regulations governing contingent payment debt instruments. Under those regulations, and as further described under "U.S Federal Income Tax Considerations—Taxation of Debt Securities—

Consequences to U.S. Holders—Debt Securities Subject to Contingences" in the accompanying prospectus, a U.S. Holder will be required to report OID or interest income based on a "comparable yield" and a "projected payment schedule," established by us for determining interest accruals and adjustments with respect to the notes. A U.S. Holder of the notes generally will be required to include in income OID in excess of actual cash payments received for certain taxable years.

The following table is based upon a projected payment schedule and a comparable yield equal to 3.7904% per annum (compounded monthly), that we established for the notes, and shows the amounts of ordinary income from a note that an initial U.S. Holder that holds the note until maturity and pays taxes on a calendar year basis should be required to report each calendar year.

Accrual Period	Interest Deemed to Accrue During Accrual Period (per \$1,000 principal amount of the Notes)	Total Interest Deemed to Have Accrued from Original Issue Date (per \$1,000 principal amount of the Notes)
March 27, 2018 through December 31, 2018	\$28.8781	\$28.8781
January 1, 2019 through December 31, 2019	\$38.0093	\$66.8874
January 1, 2020 through December 31, 2020	\$38.0034	\$104.8908
January 1, 2021 through December 31, 2021	\$37.9922	\$142.8830
January 1, 2022 through December 31, 2022	\$37.9806	\$180.8637
January 1, 2023 through December 31, 2023	\$37.9686	\$218.8323
January 1, 2024 through December 31, 2024	\$37.9561	\$256.7884
January 1, 2025 through December 31, 2025	\$37.9432	\$294.7316
January 1, 2026 through December 31, 2026	\$37.9297	\$332.6613
January 1, 2027 through December 31, 2027	\$37.9157	\$370.5770
January 1, 2028 through March 27, 2028 PS-24	\$9.0555	\$379.6325

In addition, we have determined the projected payment schedule for the notes as consisting of monthly payments of \$2.9167 for the first 12 months, monthly payments of \$3.1910 thereafter until maturity, and a final payment equal to \$1,003.1910 on the Maturity Date per \$1,000 in principal amount.

You should be aware that these amounts are not calculated or provided for any purposes other than the determination of a U.S. Holder's interest accruals and adjustments with respect to the notes for U.S. federal income tax purposes. By providing the table above and the projected payment schedule, we make no representations regarding the actual amounts of interest payments on the notes after the first 18 monthly interest periods.

Sale, Exchange, or Retirement. Upon a sale, exchange, or retirement of a note prior to maturity, a U.S. Holder generally will recognize taxable gain or loss equal to the difference between the amount realized on the sale, exchange, or retirement and that holder's tax basis in the note. A U.S. Holder's tax basis in a note generally will equal the cost of that note, increased by the amount of OID previously accrued by the holder for that note (without regard to any positive or negative adjustments) and reduced by any projected payments for previous periods on the notes and, if applicable, increased or decreased by the amount of any positive or negative adjustment that the holder is required to make with respect to the notes under the rules set forth above addressing purchases of notes for an amount that differs from the notes' adjusted issue price at the time of purchase. A U.S. Holder generally will treat any gain as interest income, and will treat any loss as ordinary loss to the extent of the excess of previous interest inclusions over the total negative adjustments previously taken into account as ordinary losses, and the balance as long-term or short-term capital loss depending upon the U.S. Holder's holding period for the note.

## Non-U.S. Holders

Please see the discussion under "U.S. Federal Income Tax Considerations—Taxation of Debt Securities—Consequences to Non-U.S. Holders" in the accompanying prospectus for the material U.S. federal income tax consequences that will apply to Non-U.S. Holders of the notes.

## **Backup Withholding and Information Reporting**

Please see the discussion under "U.S. Federal Income Tax Considerations—Taxation of Debt Securities—Backup Withholding and Information Reporting" in the accompanying prospectus for a description of the applicability of the backup withholding and information reporting rules to payments made on the notes.

#### **ERISA CONSIDERATIONS**

Each fiduciary of a pension, profit-sharing, or other employee benefit plan subject to the Employee Retirement Income Security Act of 1974 ("ERISA") (a "Plan"), should consider the fiduciary standards of ERISA in the context of the Plan's particular circumstances before authorizing an investment in the notes. Accordingly, among other factors, the fiduciary should consider whether the investment would satisfy the prudence and diversification requirements of ERISA and would be consistent with the documents and instruments governing the Plan.

In addition, we and certain of our subsidiaries and affiliates, including MLPF&S, may be each considered a party in interest within the meaning of ERISA, or a disqualified person (within the meaning of the Code), with respect to many Plans, as well as many individual retirement accounts and Keogh plans (also "Plans"). Prohibited transactions within the meaning of ERISA or the Code would likely arise, for example, if the notes are acquired by or with the assets of a Plan with respect to which we or any of our affiliates is a party in interest, unless the notes are acquired under an exemption from the prohibited transaction rules. A violation of these prohibited transaction rules could result in an excise tax or other liabilities under ERISA and/or Section 4975 of the Code for such persons, unless exemptive relief is available under an applicable statutory or administrative exemption.

Under ERISA and various prohibited transaction class exemptions ("PTCEs") issued by the U.S. Department of Labor, exemptive relief may be available for direct or indirect prohibited transactions resulting from the purchase, holding, or disposition of the notes. Those exemptions are PTCE 96-23 (for certain transactions determined by in-house asset managers), PTCE 95-60 (for certain transactions involving insurance company general accounts), PTCE 91-38 (for certain transactions involving bank collective investment funds), PTCE 90-1 (for certain transactions involving insurance company separate accounts), PTCE 84-14 (for certain transactions determined by independent qualified asset managers), and the exemption under Section 408(b)(17) of ERISA and Section 4975(d)(20) of the Code for certain arm's-length transactions with a person that is a party in interest solely by reason of providing services to Plans or being an affiliate of such a service provider (the "Service Provider Exemption").

Because we may be considered a party in interest with respect to many Plans, the notes may not be purchased, held, or disposed of by any Plan, any entity whose underlying assets include plan assets by reason of any Plan's investment in the entity (a "Plan Asset Entity") or any person investing plan assets of any Plan, unless such purchase, holding, or disposition is eligible for exemptive relief, including relief available under PTCE 96-23, 95-60, 91-38, 90-1, or 84-14 or the Service Provider Exemption, or such purchase, holding, or disposition is otherwise not prohibited. Any purchaser, including any fiduciary purchasing on behalf of a Plan, transferee or holder of the notes will be deemed to have represented, in its corporate and its fiduciary capacity, by its purchase and holding of the notes that either (a) it is not a Plan or a Plan Asset Entity and is not purchasing such notes on behalf of or with plan assets of any Plan or any plan subject to similar laws or (b) its purchase, holding, and disposition are eligible for exemptive relief or such purchase, holding, and disposition are not prohibited by ERISA or Section 4975 of the Code or similar laws.

Further, any person acquiring or holding the notes on behalf of any plan or with any plan assets shall be deemed to represent on behalf of itself and such plan that (x) the plan is paying no more than, and is receiving no less than, adequate consideration within the meaning of Section 408(b)(17) of ERISA in connection with the transaction or any redemption of the notes, (y) none of us, MLPF&S, or any other selling agent directly or indirectly exercises any discretionary authority or control or renders investment advice or otherwise acts in a fiduciary capacity with respect to the assets of the plan within the meaning of ERISA and (z) in making the foregoing representations and warranties, such person has applied sound business principles in determining whether fair market value will be paid, and has made such determination acting in good faith.

The fiduciary investment considerations summarized above generally apply to employee benefit plans maintained by private-sector employers and to individual retirement accounts and other arrangements subject to Section 4975 of the Code, but generally do not apply to governmental plans (as defined in Section 3(32) of ERISA), certain church plans (as defined in Section 3(33) of ERISA), and foreign plans (as described in Section 4(b)(4) of ERISA). However, these other plans may be subject to similar provisions under applicable federal, state, local, foreign, or other regulations, rules, or laws ("similar laws"). The fiduciaries of plans subject to similar laws should also consider the foregoing issues in general terms as well as any further issues arising under the applicable similar laws.

In addition, any purchaser, that is a Plan or a Plan Asset Entity or that is acquiring the notes on behalf of a Plan or a Plan Asset Entity, including any fiduciary purchasing on behalf of a Plan or Plan Asset entity, will be deemed to have represented, in its corporate and its fiduciary capacity, by its purchase and holding of the notes that (a) none of us, MLPF&S, or any of our other affiliates is a "fiduciary" (under Section 3(21) of ERISA, or under any final or proposed regulations thereunder, or with respect to a governmental, church, or foreign plan under any similar laws) with respect to the acquisition, holding or disposition of the notes, or as a result of any exercise by us or our affiliates of any rights in connection with the notes, (b) no advice provided by us or any of our affiliates has formed a primary basis for any investment decision by or on behalf of such purchaser in connection with the notes and the transactions contemplated with respect to the notes, and (c) such purchaser recognizes and agrees that any communication from us or any of our affiliates to the purchaser with respect to the notes is not intended by us or any of our affiliates to be impartial investment advice and is rendered in its capacity as a seller of such notes and not a fiduciary to such purchaser. Purchasers of the notes have exclusive responsibility for ensuring that their purchase, holding, and disposition of the notes do not violate the prohibited transaction rules of ERISA or the Code or any similar regulations applicable to governmental or church plans, as described above.

This discussion is a general summary of some of the rules which apply to benefit plans and their related investment vehicles. This summary does not include all of the investment considerations relevant to Plans and other benefit plan investors such as governmental, church, and foreign plans and should not be construed as legal advice or a legal opinion. Due to the complexity of these rules and the penalties that may be imposed upon persons involved in non-exempt prohibited transactions, it is particularly important that fiduciaries or other persons considering purchasing the notes on behalf of or with "plan assets" of any Plan or other benefit plan investor consult with their legal counsel prior to directing any such purchase.