UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

CURRENT REPORT Pursuant to Section 13 OR 15(d) of The Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): November 18, 2019



(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation) 1-15399 (Commission File Number) 36-4277050 (IRS Employer Identification No.)

1 North Field Court, Lake Forest, Illinois 60045 (Address of Principal Executive Offices, including Zip Code)

(847) 482-3000

(Registrants' Telephone Number, Including Area Code)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrants under any of the following provisions:

□ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

Dere-commencement communications pursuant to Rule 14d-2 (b) under the Exchange Act (17 CFR 240.14d-2 (b))

D Pre-commencement communications pursuant to Rule 13e-4 (c) under the Exchange Act (17 CFR 240.13e-4 (c))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§ 230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§ 240.12b-2 of this chapter).

Emerging growth company \Box

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Securities registered pursuant to Section 12(b) of the Exchange Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock	PKG	New York Stock Exchange

Item 8.01. Other Events

Number

On November 18, 2019, Packaging Corporation of America (the "Corporation") entered into an underwriting agreement (the "Underwriting Agreement") with Deutsche Bank Securities Inc. and Wells Fargo Securities, LLC, as representatives of the several underwriters listed therein, for the issuance and sale of \$500,000,000 in aggregate principal amount of 3.000% Senior Notes due 2029 (the "2029 Notes") and \$400,000,000 in aggregate principal amount of 4.050% Senior Notes due 2049 (the "2049 Notes," and together with the 2029 Notes, the "Notes"). Net proceeds from the offering of the Notes, after deducting the underwriting discount and estimated offering expenses, are expected to be approximately \$887.1 million, which the Corporation intends to use, together with a portion of its cash on hand, to redeem the outstanding 2.450% Senior Notes due 2020 (the "2020 Notes") and 3.900% Senior Notes due 2022 (the "2022 Notes"). A copy of the Underwriting Agreement is filed herewith as Exhibit 1.1.

Item 9.01. Financial Statements and Exhibits

A list of exhibits filed herewith is contained on the Exhibit Index immediately preceding such exhibits and is incorporated herein by reference.

EXHIBIT INDEX

Description

- 1.1 <u>Underwriting Agreement, dated November 18, 2019</u>
- 4.1 Officers' Certificate, dated November 21, 2019, pursuant to Section 301 of the Indenture, dated July 21, 2003, by and between Packaging Corporation of America and U.S. Bank National Association (executed Notes filed under Exhibits <u>4.2</u> and <u>4.3</u> hereto)
- 4.2 <u>3.000% Senior Notes due 2029</u>
- 4.3 4.050% Senior Notes due 2049
- 5.1 Opinion of Mayer Brown LLP, dated November 21, 2019
- 23.1 Consent of Mayer Brown LLP (included in Exhibit 5.1 hereto)
- 104 Cover Page Interactive Data File (embedded within the Inline XBRL document)

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

PACKAGING CORPORATION OF AMERICA

By: /s/ Kent A. Pflederer

Name: Kent A. Pflederer Title: Senior Vice President, General Counsel and Secretary

[Form 8-K]

Dated: November 21, 2019

Exhibit 1.1

PACKAGING CORPORATION OF AMERICA

\$500,000,000 3.000% SENIOR NOTES DUE 2029

\$400,000,000 4.050% SENIOR NOTES DUE 2049

UNDERWRITING AGREEMENT

November 18, 2019

Deutsche Bank Securities Inc. Wells Fargo Securities, LLC As Representatives of the Several Underwriters

c/o Deutsche Bank Securities Inc. 60 Wall Street, 4th Floor New York, New York 10005

c/o Wells Fargo Securities, LLC 550 South Tryon Street, 5th Floor Charlotte, North Carolina 28202

Ladies and Gentlemen:

Packaging Corporation of America, a Delaware corporation (the "Company"), proposes to issue and sell to the several underwriters (the "Underwriters") named in Schedule I hereto for whom you are acting as representatives (the "Representatives") (i) \$500,000,000 aggregate principal amount of its 3.000% Senior Notes due 2029 (the "2029 Notes") and (ii) \$400,000,000 aggregate principal amount of its 4.050% Senior Notes due 2049 (the "2049 Notes" and, together with the 2029 Notes, the "Notes"). The respective principal amounts of the Notes to be so purchased by the several Underwriters are set forth opposite their names in Schedule I hereto. The Notes are to be issued under the Base Indenture, dated as of July 21, 2003 (the "Indenture"), by and between the Company and U.S. Bank National Association, as trustee (the "Trustee") pursuant to an Officers' Certificate (as defined in the Indenture) delivered to the Trustee pursuant to Section 301 of the Indenture (the "Authorizing Officers' Certificate").

As the Representatives, you have advised the Company (a) that you are authorized to enter into this Agreement on behalf of the several Underwriters, and (b) that the several Underwriters are willing, acting severally and not jointly, to purchase the principal amount of Notes set forth opposite their respective names in Schedule I.

In consideration of the mutual agreements contained herein and of the interests of the parties in the transactions contemplated hereby, the parties hereto agree as follows:

1. <u>Representations and Warranties of the Company</u>.

The Company represents and warrants to each of the Underwriters as follows:

(a) An "automatic shelf registration statement" as defined in Rule 405 under the Securities Act of 1933, as amended (the "Act"), on Form S-3 (File No. 333-221917) in respect of the Notes, including a prospectus (the "Base Prospectus"), has been prepared and filed by the

Company not earlier than three years prior to the date hereof, in conformity with the requirements of the Act and the rules and regulations (the "Rules and Regulations") of the Securities and Exchange Commission (the "Commission") thereunder. The Company and the transactions contemplated by this Agreement meet the eligibility requirements of, and comply with the conditions for the use of, Form S-3 under the Act. Such registration statement, which shall be deemed to include all information omitted therefrom in reliance upon Rules 430A, 430B or 430C under the Act, is herein referred to as the "Registration Statement" and became effective under the Act upon filing with the Commission. No post-effective amendment to the Registration Statement has been filed as of the date of this Agreement. As used herein, the term "Prospectus" means the Base Prospectus as supplemented by the prospectus supplement relating to the Notes first filed with the Commission pursuant to and within the time limits described in Rule 424(b) under the Act and in accordance with Section 4(a) hereof. The Base Prospectus, as supplemented by any preliminary prospectus supplement relating to the Notes filed with the Commission pursuant to Rule 424(b) under the Act, is herein referred to as a "Preliminary Prospectus." Any reference herein to the Registration Statement, to any Preliminary Prospectus or to the Prospectus or to any amendment or supplement to any of the foregoing documents shall be deemed to refer to and include the documents incorporated by reference therein pursuant to Item 12 of Form S-3 under the Act, as of the effective date of the Registration Statement or the date of such Preliminary Prospectus or the Prospectus, as the case may be, and any reference to "amend," "amendment" or "supplement" with respect to the Registration Statement, any Preliminary Prospectus or the Prospectus shall be deemed to include any documents incorporated by reference therein, and any supplements or amendments thereto, filed with the Commission after the date of filing of the Prospectus under Rule 424(b) under the Act and prior to the termination of the offering of the Notes by the Underwriters.

(b) As of the Applicable Time (as defined below) and as of the Closing Date (as defined below), neither (i) the General Use Free Writing Prospectus(es) (as defined below) issued at or prior to the Applicable Time and the Statutory Prospectus (as defined below), all considered together (collectively, the "General Disclosure Package"), nor (ii) any individual Limited Use Free Writing Prospectus (as defined below), when considered together with the Preliminary Prospectus filed prior to the first use of such Limited Use Free Writing Prospectus, included or will include any untrue statement of a material fact or omitted or will omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; *provided, however*, that the Company makes no representations or warranties as to information contained in or omitted from any Issuer Free Writing Prospectus (as defined below), in reliance upon, and in conformity with, written information furnished to the Company by or on behalf of any Underwriter through the Representatives, specifically for use therein, it being understood and agreed that the only such information is that described in Section 13. As used in this Agreement:

"Applicable Time" means 4:30 p.m. (New York time) on the date of this Agreement.

"Statutory Prospectus" means the Base Prospectus, as amended and supplemented immediately prior to the Applicable Time, including any document incorporated by reference therein and any prospectus supplement (including any preliminary prospectus supplement) deemed to be a part thereof.

"Issuer Free Writing Prospectus" means any "issuer free writing prospectus," as defined in Rule 433 under the Act, relating to the Notes in the form filed or required to be filed with the Commission or, if not required to be filed, in the form retained in the Company's

-2-

records pursuant to Rule 433(g) under the Act, including the Fixed Income Investor Update dated December 7, 2017 and made available to selected fixed income investors on and after December 6, 2017.

"General Use Free Writing Prospectus" means any Issuer Free Writing Prospectus that is identified on Schedule II to this Agreement.

"Limited Use Free Writing Prospectus" means any Issuer Free Writing Prospectus that is not a General Use Free Writing Prospectus.

(c) The Company has been incorporated and is validly existing as a corporation in good standing under the laws of the State of Delaware, with corporate power and authority to own or lease its properties and conduct its business as described in the Registration Statement, the General Disclosure Package and the Prospectus. Each of the subsidiaries of the Company has been duly incorporated or formed and is validly existing and, if and to the extent applicable, in good standing under the laws of the jurisdiction of its incorporation or formation, with all power and authority to own or lease its properties and conduct its business as described in the Registration Statement, the General Disclosure Package and the Prospectus. The Company and each of its subsidiaries are duly qualified to transact business in all jurisdictions in which the conduct of their business requires such qualification, except to the extent that the failure to be so qualified, individually or in the aggregate, would not reasonably be expected to have a material adverse effect on the condition, financial or otherwise, or on the earnings, business or operations of the Company and its subsidiaries, taken as a whole (a "Material Adverse Effect"). The outstanding shares of capital stock of each of the Company's subsidiaries have been duly authorized and validly issued, are fully paid and non-assessable and are owned by the Company or another of its subsidiaries free and clear of all liens, encumbrances and equities and claims.

(d) The Company has the capitalization as set forth in the Prospectus under the caption "Capitalization" (and any similar section or information contained in the General Disclosure Package).

(e) The Commission has not issued an order preventing or suspending the use of the Registration Statement, any Preliminary Prospectus, any Issuer Free Writing Prospectus or the Prospectus relating to the proposed offering of the Notes, and no proceeding for that purpose or pursuant to Section 8A of the Act has been instituted or, to the Company's knowledge, threatened by the Commission. The Registration Statement contains, and the Prospectus and any amendments or supplements thereto will contain, all statements which are required to be stated therein by, and will conform in all material respects to, the requirements of the Act, the Trust Indenture Act of 1939, as amended (the "Trust Indenture Act"), and the Rules and Regulations. The documents incorporated, or to be incorporated, by reference in the Registration Statement, the General Disclosure Package and the Prospectus, at the time filed with the Commission, conformed, or will conform, in all material respects to the requirements of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and the rules and regulations of the Commission thereunder. The Registration Statement, as of its effective date, and any amendment thereto, as of its effective date, did not contain, and will not contain, any untrue statement of a material fact and did not omit, and will not omit, to state a material fact required to be stated therein or necessary to make the statements therein not misleading. As of the date of the Prospectus, as of the date of any amendments and supplements thereto and as of the Closing Date, the Prospectus and any such amendments or supplements did not contain, and will not contain, any untrue statement of a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading;

-3-

provided, however, that the Company makes no representations or warranties as to (i) information contained in or omitted from the Registration Statement or the Prospectus, or any such amendment or supplement, in reliance upon, and in conformity with, written information furnished to the Company by or on behalf of any Underwriter through the Representatives specifically for use therein, it being understood and agreed that the only such information is that described in Section 13 and (ii) that part of the Registration Statement that constitutes the Statement of Eligibility (Form T-1) of the Trustee under the Trust Indenture Act.

(f) Each Issuer Free Writing Prospectus, as of its date and at all subsequent times through the completion of the public offer and sale of the Notes or until any earlier date that the Company notified or notifies the Representatives, did not, does not and will not include any information that conflicted, conflicts or will conflict with the information contained in the Registration Statement, any Preliminary Prospectus not superseded or modified or the Prospectus, including any document incorporated by reference and any Prospectus Supplement deemed to be a part thereof that has not been superseded or modified.

(g) The Company has not, directly or indirectly, distributed and will not distribute any offering material in connection with the offering and sale of the Notes other than any Preliminary Prospectus, the Prospectus and other materials, if any, permitted under the Act and consistent with Section 4(b) and 4(c) below. The Company will file with the Commission all Issuer Free Writing Prospectuses in the time and manner required under Rules 163(b)(2) and 433(d) under the Act.

(h) (i) At the time of filing the Registration Statement, (ii) at the time of the most recent amendment thereto for the purposes of complying with Section 10(a)(3) under the Act (whether such amendment was by post-effective amendment, incorporated report filed pursuant to Section 13 or 15(d) of the Exchange Act or form of prospectus), (iii) at the time the Company or any person acting on its behalf (within the meaning, for this clause only, of Rule 163(c) under the Act) made any offer relating to the Notes in reliance on the exemption of Rule 163 under the Act and (iv) at the date hereof, the Company is a "well-known seasoned issuer" as defined in Rule 405 under the Act. The Company has not received from the Commission any notice pursuant to Rule 401(g)(2) under the Act objecting to the use of the automatic shelf registration form.

(i) (i) At the earliest time after the filing of the Registration Statement that the Company or another offering participant made a *bona fide* offer (within the meaning of Rule 164(h)(2) under the Act) of the Notes and (ii) as of the date hereof (with such date being used as the determination date for purposes of this clause (ii)), the Company was not and is not an "ineligible issuer" (as defined in Rule 405 under the Act, without taking into account any determination by the Commission pursuant to Rule 405 under the Act that it is not necessary that the Company be considered an ineligible issuer), including, without limitation, for purposes of Rules 164 and 433 under the Act with respect to the offering of the Notes as contemplated by the Registration Statement.

(j) KPMG LLP has certified certain of the financial statements filed with the Commission as part of, or incorporated by reference in, the Registration Statement, the General Disclosure Package and the Prospectus. KPMG LLP is an independent registered public accounting firm with respect to the Company and each of its subsidiaries within the meaning of the Act and the Applicable Rules and Regulations and the Public Company Accounting Oversight Board (United States).

-4-

(k) There is no action, suit, claim or proceeding pending or, to the knowledge of the Company, threatened against the Company or any of its subsidiaries before any court or administrative agency or otherwise which if determined adversely to the Company or any of its subsidiaries would either (i) reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect or (ii) prevent the consummation of the transactions contemplated hereby, except as set forth in the Registration Statement, the General Disclosure Package and the Prospectus.

(1) The Company and its subsidiaries have good and marketable title to all real property and good and marketable title to all personal property owned by them, in each case free and clear of all liens, encumbrances and defects except such liens, encumbrances and defects as are described in the Registration Statement, the General Disclosure Package and the Prospectus or such as would not have a Material Adverse Effect; and any real property and buildings held under lease by the Company and its subsidiaries are held by them under valid, subsisting and enforceable leases with such exceptions as would not, individually or in the aggregate, have a Material Adverse Effect.

(m) Since the date of the most recent financial statements of the Company included or incorporated by reference in the Registration Statement, the General Disclosure Package and the Prospectus, there has not been any material adverse change or any development involving a prospective material adverse change in or affecting the condition, financial or otherwise, or the earnings, business or operations of the Company and its subsidiaries, taken as a whole.

(n) Neither the Company nor any of its subsidiaries is or with the giving of notice or lapse of time or both, will be, (i) in violation of its certificate or articles of incorporation, by-laws, certificate of formation, limited liability agreement or other organizational documents, (ii) in violation of or in default under any agreement, lease, contract, indenture or other instrument or obligation to which it is a party or by which it, or any of its properties, is bound or (iii) in violation of any law, order, rule, regulation, judgment, writ or decree applicable to the Company or any of its subsidiaries of any court or of any government, regulatory body or administrative agency or other governmental body having jurisdiction over the Company or any of its subsidiaries, except, solely with respect to clauses (ii) and (iii), for any such violation or default that would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect. The execution and delivery of this Agreement, the Notes, the Authorizing Officers' Certificate and the Indenture and the consummation of the transactions herein and therein contemplated and the fulfillment of the terms hereof and thereof (including, without limitation, the issuance and sale of the Notes to the Underwriters) will not conflict with or result in a breach of any of the terms or provisions of, or constitute a default under, (x) any indenture, mortgage, deed of trust or other agreement or instrument to which the Company or any of its subsidiaries is a party, (y) the certificate of incorporation or by-laws of the Company or (z) any law, order, rule, regulation, judgment, writ or decree applicable to the Company or any of its subsidiaries of any court or of any governmental body having jurisdiction over the Company or any of its subsidiaries (x) and (z), for any such conflict, breach or default that would not, individually or in the aggregate, have a Material Adverse Effect.

(o) This Agreement has been duly authorized, executed and delivered by the Company.

(p) The Company has all requisite corporate power and authority to execute, deliver and perform each of its obligations under the Notes. The Notes, when issued, will be in the form contemplated by the Indenture. The Notes have been duly and validly authorized by the Company

-5-

and, when executed by the Company and authenticated by the Trustee in accordance with the provisions of the Indenture and when delivered to and paid for by the Underwriters in accordance with the terms of this Agreement, will constitute valid and legally binding obligations of the Company, entitled to the benefits of the Indenture, and enforceable against the Company in accordance with their terms, except that the enforcement thereof may be subject to (i) bankruptcy, insolvency, reorganization, moratorium or other similar laws now or hereafter in effect relating to creditors' rights generally, and (ii) general principles of equity and the discretion of the court before which any proceeding therefor may be brought (collectively, the "Enforceability Exceptions").

(q) The Company has all requisite corporate power and authority to execute, deliver and perform its obligations under the Indenture and to execute and deliver the Authorizing Officers' Certificate. The Indenture has been duly qualified under the Trust Indenture Act. The Indenture has been duly and validly authorized, executed and delivered by the Company and (assuming the due authorization, execution and delivery by the Trustee) constitutes a valid and legally binding agreement of the Company, enforceable against the Company in accordance with its terms, except that the enforcement thereof may be subject to the Enforceability Exceptions. The Authorizing Officers' Certificate has been duly and validly authorized by the Company, and on the Closing Date, will have been duly executed and delivered on behalf of the Company.

(r) Each approval, consent, order, authorization, designation, declaration or filing by or with any regulatory, administrative or other governmental body necessary in connection with the execution and delivery by the Company of this Agreement and the consummation of the transactions herein contemplated (except for the furnishing of the opinion required pursuant to Item 601(b)(5)(i) of Regulation S-K promulgated under the Act or such additional steps as may be necessary to qualify the Notes for public offering by the Underwriters under state securities or Blue Sky laws) has been obtained or made and is in full force and effect.

(s) The Company and its subsidiaries possess all certificates, authorizations, approvals, licenses, registrations and permits issued by appropriate Federal, state or foreign regulatory authorities necessary to conduct their respective businesses, except where the failure to possess such certificates, authorizations, approvals, licenses, registrations or permits would not have a Material Adverse Effect.

(t) The Company is not, and after giving effect to the offering and sale of the Notes contemplated hereunder and the application of the net proceeds from such sale as described in the Prospectus will not be, an "investment company" within the meaning of such term under the Investment Company Act of 1940, as amended, and the rules and regulations of the Commission thereunder.

(u) The Company maintains a system of internal control over financial reporting (as such term is defined in Rule 13a-15(f) under the Exchange Act) that complies with the requirements of the Exchange Act and has been designed by the Company's principal executive officer and principal financial officer, or under their supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. As of December 31, 2018, the Company's internal control over financial reporting was effective, and the Company is not aware of any material weaknesses in its internal control over financial reporting.

(v) The Company and each of its subsidiaries carry, or are covered by, insurance in such amounts and covering such risks as is reasonable for the conduct of their respective businesses and the value of their respective properties and as is customary for companies engaged in similar businesses.

-6-

(w) Neither the Company nor any of its subsidiaries nor, to the knowledge of the Company, any director, officer, agent, employee or affiliate or other person acting on behalf of the Company or any of its subsidiaries is aware of or has taken any action, directly or indirectly, that has resulted or would result in a violation by such persons of the Foreign Corrupt Practices Act of 1977, as amended, and the rules and regulations thereunder (the "FCPA"), the Bribery Act 2010 of the United Kingdom, as amended, and the rules and regulations thereunder (the "UK Bribery Act") or any similar applicable anti-bribery laws, including, without limitation, making use of the mails or any means or instrumentality of interstate commerce corruptly in furtherance of an offer, payment, promise to pay or authorization of the payment of any money, or other property, gift, promise to give, or authorization of the giving of anything of value to any "foreign official" (as such term is defined in the FCPA) or any foreign political party or official thereof or any candidate for foreign political office, in contravention of the FCPA, the UK Bribery Act or any similar applicable anti-bribery laws, and the Company, its subsidiaries and its affiliates have conducted their businesses in compliance with the FCPA, the UK Bribery Act and similar applicable anti-bribery laws and have instituted and maintain policies and procedures designed to ensure, and which are reasonably expected to continue to ensure, continued compliance therewith.

(x) The Company maintains disclosure controls and procedures (as such term is defined in Rule 13a-15(e) under the Exchange Act) that comply with the requirements of the Exchange Act; such disclosure controls and procedures have been designed to ensure that material information relating to the Company and its subsidiaries is made known to the Company's principal executive officer and principal financial officer by others within those entities; and as of December 31, 2018 such disclosure controls and procedures were effective.

(y) The Notes and the Indenture will conform in all material respects to the descriptions thereof in the Prospectus and the General Disclosure Package and will be in substantially the respective forms filed or incorporated by reference, as the case may be, as exhibits to the Registration Statement.

(z) The Company and its subsidiaries (i) are in compliance with any and all applicable foreign, Federal, state and local laws and regulations relating to the protection of human health and safety, the environment or hazardous or toxic substances or wastes, pollutants or contaminants ("Environmental Laws"), (ii) have received all permits, licenses or other approvals required of them under applicable Environmental Laws to conduct their respective businesses and (iii) are in compliance with all terms and conditions of any such permit, license or approval, except where such noncompliance with Environmental Laws, failure to receive required permits, licenses or other approvals or failure to comply with the terms and conditions of such permits, licenses or approvals would not, individually or in the aggregate, have a Material Adverse Effect.

(aa) Except as disclosed in the Registration Statement, the General Disclosure Package and the Prospectus, there are no costs or liabilities associated with Environmental Laws (including, without limitation, any capital or operating expenditures required for clean-up, closure of properties or compliance with Environmental Laws or any permit, license or approval, any related constraints on operating activities and any potential liabilities to third parties) which would, individually or in the aggregate, have a Material Adverse Effect.

(bb) No labor dispute with the employees of the Company or any of its subsidiaries exists or, to the knowledge of the Company, is imminent, and the Company is not aware of any

-7-

existing or imminent labor disturbance by the employees of any of its or any of its subsidiaries' principal suppliers, manufacturers, customers or contractors, which, in either case, would reasonably be expected to have a Material Adverse Effect.

(cc) The financial statements of the Company included or incorporated by reference in the Registration Statement, the General Disclosure Package and the Prospectus, together with the related schedules and notes, present fairly in all material respects the financial position of the entities purported to be covered thereby at the dates indicated and the results of operations, changes in stockholders' equity and cash flows of such entities for the periods specified; such financial statements have been prepared in conformity with generally accepted accounting principles applied on a consistent basis throughout the periods involved, except as may be stated in the related notes thereto, and comply as to form in all material respects with all applicable accounting requirements under the Act and the Rules and Regulations or the Exchange Act and the rules and regulations of the Commission thereunder, as applicable. The other historical financial information of the Company included or incorporated by reference in the General Disclosure Package and the Final Prospectus has been derived from the accounting records of the entities to which they relate and presents fairly in all material respects the information shown thereby. The interactive data in eXtensible Business Reporting Language incorporated by reference in the Registration Statement, the General Disclosure Package and the Prospectus presents fairly the information called for in all material respects and has been prepared in accordance with the Commission's rules and guidelines applicable thereto.

(dd) The Company has not taken, directly or indirectly, any action designed to or that has constituted or that might reasonably be expected to cause or result in the stabilization or manipulation of the price of any security to facilitate the sale or resale of the Notes.

(ee) There is and has been no failure on the part of the Company or any of the Company's directors or officers, in their capacities as such, to comply in all material respects with any provision of the Sarbanes-Oxley Act of 2002, as amended, and the rules and regulations promulgated thereunder with which any of them is required to comply, including Section 402 related to loans.

(ff) The operations of the Company and its subsidiaries are and have been conducted at all times in compliance with applicable financial recordkeeping and reporting requirements of the Currency and Foreign Transactions Reporting Act of 1970, as amended, the applicable money laundering statutes of all jurisdictions where the Company and its subsidiaries conduct business, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any governmental agency applicable to the Company and its subsidiaries (collectively, "Money Laundering Laws"), and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company or any of its subsidiaries with respect to the Money Laundering Laws is pending or, to the knowledge of the Company, threatened.

(gg) To the knowledge of the Company, the Company and its subsidiaries' information technology and computer systems, networks, hardware, software, internet web sites, data and databases (collectively, "IT Systems and Data") are adequate for, and operate and perform in all material respects as required in connection with, the operation of the business of the Company and the subsidiaries as currently conducted. The Company and its subsidiaries have implemented and maintained commercially reasonable information technology, information security, cyber security and data protection controls, policies and procedures designed to protect and prevent security breaches of, unauthorized access to and other similar compromises of IT Systems and Data in

-8-

accordance with industry practices. The Company and its subsidiaries have not experienced and have no knowledge of any cyber-attack, security breach, unauthorized access or other similar compromise to their IT Systems and Data, which attack, breach, unauthorized access or similar compromise could have material financial, legal or reputational consequences. The Company and its subsidiaries are presently in material compliance with all applicable laws and contractual obligations relating to the privacy and security of IT Systems and Data and to the protection of such IT Systems and Data from unauthorized use, access, misappropriation or modification.

(hh) Neither the Company nor any of its subsidiaries nor, to the knowledge of the Company, any director, officer, agent, employee, affiliate or other person acting on behalf of the Company or any of its subsidiaries is currently the subject of any U.S. sanctions administered by the U.S. government (including, without limitation, the Office of Foreign Assets Control of the U.S. Treasury Department ("OFAC"), the U.S. Department of Commerce and the U.S. Department of State, and including, without limitation, the designation as a "specially designated national" or "blocked person"), the United Nations Security Council, the European Union or Her Majesty's Treasury (collectively, the "Sanctions"), nor is the Company or any of its subsidiaries located, organized, or resident in a country or territory that is the subject or target of comprehensive Sanctions (namely, Crimea, Cuba, Iran, North Korea and Syria); and the Company will not directly or indirectly use any of the proceeds from the offering of the Notes, or lend, contribute or otherwise make available any such proceeds to any subsidiary, joint venture partner or other person or entity, for the purpose of financing the activities of or business with any person currently subject or target of Sanctions, or in any country or territory that is currently the subject or target of comprehensive Sanctions or in any other manner that will result in a violation by any person participating in the offering (whether as an underwriter, advisor, investor or otherwise) of Sanctions.

(ii) The Company is not and will not be (1) an employee benefit plan subject to Title I of the Employee Retirement Income Security Act of 1974, as amended ("ERISA"), (2) a plan or account subject to Section 4975 of the Internal Revenue Code of 1986, as amended (the "Code"); (3) an entity deemed to hold "plan assets" of any such plans or accounts for purposes of ERISA or the Code; or (4) a "governmental plan" within the meaning of ERISA.

2. Purchase, Sale and Delivery of the Notes.

(a) The Company agrees to issue and sell to the Underwriters and, on the basis of the representations, warranties, agreements and covenants herein contained and subject to the terms and conditions herein set forth, the Underwriters, acting severally and not jointly, agree to purchase the Notes in the respective principal amounts set forth on Schedule I hereto from the Company, (i) in the case of the 2029 Notes, at 99.219% of their principal amount and (ii) in the case of the 2049 Notes, at 98.245% of their principal amount.

(b) One or more global certificates for the Notes that the Underwriters have agreed to purchase hereunder, and in such denomination or denominations and registered in such name or names as the Underwriters request upon notice to the Company at least 36 hours prior to the Closing Date, shall be delivered by or on behalf of the Company to the Underwriters, against payment by or on behalf of the Underwriters of the purchase price therefor by wire transfer (immediately available funds), to such account or accounts as the Company shall specify prior to the Closing Date. Delivery of the Notes shall be made through the facilities of the Depository Trust Company, or by such means as the parties hereto shall agree prior to the Closing Date. Such delivery of and payment for the Notes shall be made at the offices of Cahill Gordon & Reindel LLP, 80 Pine Street, New York, New York 10005 at 10:00 A.M., New York time, on November 21, 2019, or at such other place, time or date as the Underwriters, on the one hand, and the

-9-

Company, on the other hand, may agree upon, such time and date of delivery against payment being herein referred to as the "Closing Date." The Company will make such global certificate or certificates for the Notes available for checking and packaging by the Underwriters at the offices of Cahill Gordon & Reindel LLP in New York, New York, or at such other place as Deutsche Bank Securities Inc. may designate, at least 24 hours prior to the Closing Date.

3. <u>Offering by the Underwriters</u>.

It is understood that the several Underwriters are to make a public offering of the Notes as soon as the Representatives deem it advisable to do so. The Notes are to be initially offered to the public at the initial public offering price set forth in the General Disclosure Package and the Prospectus. The Representatives may from time to time thereafter change the public offering price and other selling terms.

4. <u>Covenants of the Company</u>.

The Company covenants and agrees with the several Underwriters that:

(a) The Company will (A) prepare and timely file with the Commission under Rule 424(b) (without reliance on Rule 424(b)(8)) under the Act a Prospectus in a form approved by the Representatives containing information previously omitted at the time of effectiveness of the Registration Statement in reliance on Rule 430A, 430B or 430C under the Act, (B) not, prior to the completion of the distribution of the Notes by the Underwriters, file any amendment to the Registration Statement or distribute an amendment or supplement to the General Disclosure Package or the Prospectus or document incorporated by reference therein of which the Representatives shall not previously have been advised and furnished with a copy or to which the Representatives shall have reasonably objected in writing or which is not in compliance with the Rules and Regulations and (C) file on a timely basis all reports and any definitive proxy or information statements required to be filed by the Company with the Commission subsequent to the date of the Prospectus and prior to the completion of the distribution of the Notes by the Underwriters.

(b) The Company will (i) not make any offer relating to the Notes that would constitute an Issuer Free Writing Prospectus or that would otherwise constitute a "free writing prospectus" (as defined in Rule 405 under the Act) required to be filed by the Company with the Commission under Rule 433 under the Act unless the Representatives approve its use in writing prior to first use (each, a "Permitted Free Writing Prospectus"); *provided* that the prior written consent of the Representatives hereto shall be deemed to have been given in respect of the Issuer Free Writing Prospectus(es) included in Schedule II hereto, (ii) treat each Permitted Free Writing Prospectus as an Issuer Free Writing Prospectus, (iii) comply with the requirements of Rules 163, 164 and 433 under the Act applicable to any Issuer Free Writing Prospectus, including the requirements relating to timely filing with the Commission, legending and record keeping and (iv) not take any action that would result in an Underwriter or the Company being required to file with the Commission pursuant to Rule 433(d) under the Act a "free writing prospectus" (as defined in Rule 405 under the Act) prepared by or on behalf of such Underwriter that such Underwriter otherwise would not have been required to file thereunder.

(c) The Company will prepare a final term sheet (the "Final Term Sheet") reflecting the final terms of the Notes, in form and substance satisfactory to the Representatives, and shall file such Final Term Sheet pursuant to Rule 433(d) under the Act within the time required by such Rule; *provided* that the Company shall provide the Representatives with copies of any such Final Term Sheet a reasonable amount of time prior to such proposed filing and will not use or file any such document to which the Representatives or counsel to the Underwriters shall reasonably object.

-10-

(d) The Company will advise the Representatives promptly (A) when any post-effective amendment to the Registration Statement or new registration statement relating to the Notes shall have become effective, or any supplement to the Prospectus shall have been filed, (B) of the receipt of any comments from the Commission with respect to the Registration Statement, the Prospectus, the General Disclosure Package or any document incorporated by reference therein, (C) of any request of the Commission for amendment of the Registration Statement or the filing of a new registration statement or any amendment or supplement to the General Disclosure Package or the Prospectus or any document incorporated by reference therein or otherwise deemed to be a part thereof or for any additional information, and (D) of the issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement or such new registration statement or any order preventing or suspending the use of any Preliminary Prospectus, any Issuer Free Writing Prospectus or the Prospectus, or of the institution of any proceedings for that purpose or pursuant to Section 8A of the Act. The Company will use its best efforts to prevent the issuance of any such order and to obtain as soon as possible the lifting thereof, if issued.

(e) If at any time when Notes remain unsold by the Underwriters the Company receives from the Commission a notice pursuant to Rule 401(g)(2) under the Act or otherwise ceases to be eligible to use the automatic shelf registration statement form, the Company will (i) promptly notify the Representatives, (ii) promptly file a new registration statement or post-effective amendment on the proper form relating to the Notes, in a form satisfactory to the Representatives, (iii) use its best efforts to cause such registration statement or post-effective amendment to be declared effective as soon as practicable (if such filing is not otherwise effective immediately pursuant to Rule 462 under the Act), and (iv) promptly notify the Representatives of such effectiveness. The Company will take all other action necessary or appropriate to permit the public offering and sale of the Notes to continue as contemplated in the Registration Statement that was the subject of the notice under Rule 401(g)(2) under the Act or for which the Company has otherwise become ineligible. References herein to the Registration Statement relating to the Notes shall include such new registration statement or post-effective amendment, as the case may be.

(f) The Company agrees to pay the required filing fees to the Commission relating to the Notes within the time required by Rule 456(b)(1) under the Act without regard to the proviso therein and otherwise in accordance with Rules 456(b) and 457(r) under the Act.

(g) The Company will cooperate with the Representatives in endeavoring to qualify the Notes for sale under the securities laws of such jurisdictions as the Representatives may reasonably have designated in writing and will make such applications, file such documents, and furnish such information as may be reasonably required for that purpose; *provided* the Company shall not be required to qualify as a foreign corporation or to file a general consent to service of process or to take any action that would subject itself to taxation in any jurisdiction where it is not now so qualified or required to file such a consent or subject to such taxation. The Company will, from time to time, prepare and file such statements, reports, and other documents, as are or may be required to continue such qualifications in effect for so long a period as the Representatives may reasonably request for distribution of the Notes.

(h) The Company will deliver to, or upon the order of, the Representatives, from time to time, as many copies of any Preliminary Prospectus or any Issuer Free Writing Prospectus

-11-

as the Representatives may reasonably request. The Company will deliver to, or upon the order of, the Representatives during the period when delivery of a Prospectus (or, in lieu thereof, the notice referred to under Rule 173(a) under the Act) is required by law to be delivered by an Underwriter or dealer (the "Prospectus Delivery Period"), as many copies of the Prospectus in final form, or as thereafter amended or supplemented, as the Representatives may reasonably request. The Company will deliver to the Representatives at or before the Closing Date such number of copies of the Registration Statement (including such number of copies of the exhibits filed therewith that may reasonably be requested), including documents incorporated by reference therein, and of all amendments thereto, as the Representatives may reasonably request.

(i) The Company will comply with the Act, the Rules and Regulations, the Exchange Act and the Trust Indenture Act, and the rules and regulations of the Commission thereunder, so as to permit the completion of the distribution of the Notes as contemplated in this Agreement and the Prospectus. If during the Prospectus Delivery Period, any event shall occur as a result of which, in the judgment of the Company or in the reasonable opinion of the Underwriters, it becomes necessary to amend or supplement the Prospectus in order to make the statements therein, in the light of the circumstances existing at the time the Prospectus is delivered to a purchaser, not misleading, or, if it is necessary at any time to amend or supplement the Prospectus to comply with any law, the Company promptly will either (i) prepare and file with the Commission an appropriate amendment to the Registration Statement or supplement to the Prospectus so that the Prospectus as so amended or supplemented will not, in the light of the circumstances existing when it is so delivered, be misleading, or so that the Prospectus will comply with the law.

(j) If the General Disclosure Package is being used to solicit offers to buy the Notes at a time when the Prospectus is not yet available to prospective purchasers and any event shall occur as a result of which, in the judgment of the Company or in the reasonable opinion of the Underwriters, it becomes necessary to amend or supplement the General Disclosure Package in order to make the statements therein, in the light of the circumstances existing at the time the General Disclosure Package is being used, not misleading, or to make the statements therein not conflict with the information contained in the Registration Statement then on file, or if it is necessary at any time to amend or supplement the General Disclosure Package to comply with any law, the Company promptly will either (i) prepare, file with the Commission (if required) and furnish to the Underwriters and any dealers an appropriate amendment or supplement to the General Disclosure Package or (ii) prepare and file with the General Disclosure Package as so amended or supplemented will not, in the light of the circumstances existing when it is so used, be misleading or conflict with the Registration Statement then on file, or so that the General Disclosure Package will comply with law.

(k) The Company will make generally available to its security holders, as soon as it is practicable to do so, but in any event not later than 16 months after the effective date of the Registration Statement (as defined in Rule 158(c) under the Act), an earnings statement (which need not be audited) in reasonable detail, complying with the requirements of Section 11(a) of the Act and Rule 158 under the Act.

(1) During the period beginning on the date hereof and ending on the Closing Date, without the prior written consent of each of the Representatives, the Company will not offer, sell, contract to sell or otherwise dispose of, except as provided hereunder, any securities of the Company (or guaranteed by the Company) that are substantially similar to the Notes.

-12-

(m) The Company shall apply the net proceeds from the sale of the Notes in the manner described under the caption "Use of Proceeds" in each of the General Disclosure Package and the Prospectus.

(n) The Company will not take, directly or indirectly, any action designed to or that constitutes or that might reasonably be expected to cause or result in the stabilization or manipulation of the price of any security to facilitate the sale or resale of the Notes.

(o) The Company will cause to be furnished to the Commission the opinion required pursuant to Item 601(b)(5)(i) of Regulation S-K promulgated under the Act within the time required thereby.

5. Certain Agreements of the Underwriters.

(a) Each Underwriter hereby represents and agrees that:

(i) It has not and will not use, authorize use of, refer to, or participate in the planning for use of, any "free writing prospectus," as defined in Rule 405 under the Securities Act (which term includes use of any written information furnished to the Commission by the Company and not incorporated by reference into the Registration Statement and any press release issued by the Company) other than (i) a free writing prospectus that, solely as a result of use by such Underwriter, would not trigger an obligation to file such free writing prospectus with the Commission or is not required to be retained by the Company pursuant to Rule 163 or Rule 433, (ii) any Issuer Free Writing Prospectus listed on Schedule II or prepared pursuant to Section 4(b) or Section 4(c) above, or (iii) any free writing prospectus prepared by such Underwriter and approved by the Company in advance in writing.

(ii) In relation to each Member State of the European Economic Area, it has not made and will not make an offer of Notes which are the subject of the offering contemplated by the Prospectus to the public in that Member State other than:

(1) to any legal entity which is a qualified investor as defined in the Prospectus Regulation;

(2) to fewer than 150 natural or legal persons (other than qualified investors as defined in the Prospectus Regulation), subject to obtaining the prior consent of the relevant Underwriter or Underwriters nominated by the Company for any such offer; or

(3) in any other circumstances falling within Article 1(4) of the Prospectus Regulation,

provided that no such offer of Notes shall require the Company or any Underwriter to publish a prospectus pursuant to Article 3 of the Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation. For the purposes of this provision, the expression an "offer of Notes to the public" in relation to any Notes in any Member State means 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 for the Notes and the expression "Prospectus Regulation" means Regulation (EU) 2017/1129.

(b) Each Underwriter hereby represents and agrees that in the United Kingdom, the Registration Statement, Preliminary Prospectus and Prospectus are being distributed only to, and are directed only

-13-

at, and any offer subsequently made may only be directed at persons who are "qualified investors" (as defined in the Prospectus Regulation) (1) who have professional experience in matters relating to investments falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended (the "Order") and/or (2) who are high net worth companies (or persons to whom it may otherwise be lawfully communicated) falling within Article 49(2)(a) to (d) of the Order (all such persons together being referred to as "relevant persons").

6. Costs and Expenses.

The Company will pay all costs, expenses and fees incident to the performance of the obligations of the Company under this Agreement, including, without limiting the generality of the foregoing, the following: accounting fees of the Company; the fees and disbursements of counsel for the Company; any roadshow expenses; the cost of printing and delivering to, or as requested by, the Underwriters copies of the Registration Statement, Preliminary Prospectuses, Statutory Prospectus, the Issuer Free Writing Prospectuses, the Prospectus, this Agreement, the Indenture, the Blue Sky Survey and any supplements or amendments thereto; the filing fees of the Commission; the filing fees and expenses (including legal fees and disbursements) incident to securing any required review by the Financial Industry Regulatory Authority, Inc. ("FINRA") of the terms of the sale of the Notes; any fees payable in connection with the rating of the Notes; the costs and expenses (including without limitation any damages or other amounts payable in connection with legal or contractual liability) associated with the reforming of any contracts for sale of the Notes made by the Underwriters caused by a breach of the representation in Section 1(b); the expenses, including the reasonable fees and disbursements of counsel for the Underwriters, incurred in connection with the qualification of the Notes under state securities or Blue Sky laws; the fees and expenses of the Trustee, including fees and expenses of counsel for the Trustee; and all reasonable and documented out-of-pocket costs and expenses in connection with the NetRoadshow. The Company shall not, however, be required to pay for any of the Underwriters' expenses (other than those related to qualification under state securities or Blue Sky laws or in connection with securing any required review by FINRA) except that, if this Agreement shall not be consummated because the conditions in Section 7 hereof are not satisfied, or because this Agreement is terminated by the Representatives pursuant to Section 11 hereof, or by reason of any failure, refusal or inability on the part of the Company to perform any undertaking or satisfy any condition of this Agreement or to comply with any of the terms hereof on its part to be performed, unless such failure, refusal or inability is due primarily to the default or omission of any Underwriter, the Company shall reimburse the several Underwriters for reasonable out-of-pocket expenses, including fees and disbursements of counsel, reasonably incurred in connection with investigating, marketing and proposing to market the Notes or in contemplation of performing their obligations hereunder; but the Company shall not in any event be liable to any of the several Underwriters for damages on account of loss of anticipated profits from the sale by them of the Notes.

7. <u>Conditions of Obligations of the Underwriters</u>.

The several obligations of the Underwriters to purchase the Notes on the Closing Date are subject to the accuracy, as of the Applicable Time or the Closing Date, as the case may be, of the representations and warranties of the Company contained herein, and to the performance by the Company of its covenants and obligations hereunder and to the following additional conditions:

(a) The Registration Statement and all post-effective amendments thereto shall have become effective and the Prospectus and each Issuer Free Writing Prospectus required shall have been filed as required by Rules 424(b) (without reliance on Rule 424(b)(8)), 430A, 430B, 430C or 433 under the Act, as applicable, within the time period prescribed by, and in compliance with, the Rules and Regulations, and any request of the Commission for additional information (to be included in the Registration Statement or otherwise) shall have been disclosed to the Representatives

-14-

and complied with to their reasonable satisfaction. No stop order suspending the effectiveness of the Registration Statement, as amended from time to time, shall have been issued and no proceedings for that purpose or pursuant to Section 8A under the Act shall have been taken or, to the knowledge of the Company, shall be contemplated or threatened by the Commission and no injunction, restraining order or order of any nature by a Federal or state court of competent jurisdiction shall have been issued as of the Closing Date which would prevent the issuance of the Notes.

(b) The Representatives shall have received on the Closing Date the opinion and negative assurance letter of Mayer Brown LLP, counsel for the Company, dated the Closing Date, addressed to the Underwriters, to the effect set forth in Exhibit A hereto.

(c) The Representatives shall have received on the Closing Date the opinion of Kent A. Pflederer, Esq., General Counsel of the Company, dated the Closing Date, addressed to the Underwriters, to the effect set forth in Exhibit B hereto.

(d) The Representatives shall have received from Cahill Gordon & Reindel LLP, counsel for the Underwriters, an opinion and a negative assurance letter dated the Closing Date, in form and substance satisfactory to the Representatives, with respect to such matters as the Representatives may reasonably request, and such counsel shall have received such papers and information as they may reasonably request to enable them to pass upon such matters.

(e) The Representatives shall have received, on each of the date hereof and the Closing Date, a letter dated the date hereof and the Closing Date, with copies delivered to each of the Underwriters, in form and substance satisfactory to the Representatives, of KPMG LLP covering certain financial information and other customary information contained or incorporated by reference in the Registration Statement, the General Disclosure Package and the Prospectus.

(f) The Representatives shall have received on the Closing Date a certificate or certificates of officers of the Company satisfactory to the Representatives to the effect that:

(i) The representations and warranties of the Company contained in Section 1 of this Agreement are true and correct as of the Closing Date with the same force and effect as though expressly made at and as of the Closing Date;

(ii) The Company has complied in all material respects with all of the agreements and satisfied all of the conditions on its part to be performed or satisfied under this Agreement on or before the Closing Date;

(iii) No stop order suspending the effectiveness of the Registration Statement and no order preventing or suspending the use of any Preliminary Prospectus, any Issuer Free Writing Prospectus or the Prospectus has been issued, and no proceedings for such purpose or pursuant to Section 8A of the Act have been taken or are, to his or her knowledge, contemplated or threatened by the Commission;

(iv) All filings required to have been made pursuant to Rule 424(b), 430A, 430B or 430C under the Act have been made as and when required by such rules; and

(v) Since the respective dates as of which information is given in the Registration Statement, the General Disclosure Package and Prospectus, there has not been any material adverse change or any development involving a prospective material adverse

-15-

change in or affecting the business, management, properties, assets, rights, operations, condition (financial or otherwise) or prospects of the Company and its subsidiaries taken as a whole, whether or not arising in the ordinary course of business.

(g) Subsequent to the earlier of (A) the Applicable Time and (B) the execution and delivery of this Agreement, (i) no downgrading shall have occurred in the rating of the Company, the Notes or any other debt securities or preferred stock of or guaranteed by the Company or any of its subsidiaries by any "nationally recognized statistical rating organization," as such term is defined in Section 3(a)(62) of the Exchange Act and (ii) no such organization shall have publicly announced that it has under surveillance or review, or has changed its outlook with respect to, its rating of the Company, the Notes or of any other debt securities or preferred stock of or guaranteed by the Company or any of its subsidiaries (other than an announcement with positive implications of a possible upgrading).

(h) The Representatives shall have been furnished with such further certificates and documents confirming the representations and warranties, covenants and conditions contained herein and related matters as the Representatives may reasonably have requested.

The opinions and certificates mentioned in this Agreement shall be deemed to be in compliance with the provisions hereof only if they are in all material respects satisfactory to the Representatives and to Cahill Gordon & Reindel LLP, counsel for the Underwriters.

If any of the conditions hereinabove provided for in this Section 7 shall not have been fulfilled when and as required by this Agreement to be fulfilled, the obligations of the Underwriters hereunder may be terminated by the Representatives by notifying the Company of such termination in writing or by telephone or facsimile confirmed in writing at or prior to the Closing Date.

In such event, the Company and the Underwriters shall not be under any obligation to each other (except to the extent provided in Sections 6 and 8 hereof).

8. Indemnification.

(a) The Company agrees:

(i) to indemnify and hold harmless each Underwriter, its directors, officers and agents, and each person, if any, who controls any Underwriter within the meaning of either Section 15 of the Act or Section 20 of the Exchange Act, against any losses, claims, damages or liabilities to which such Underwriter or any such controlling person may become subject under the Act or otherwise, insofar as such losses, claims, damages or liabilities (or actions or proceedings in respect thereof) arise out of or are based upon (i) any untrue statement or alleged untrue statement of any material fact contained in the Registration Statement, any Preliminary Prospectus, any Issuer Free Writing Prospectus, the Prospectus or any amendment or supplement thereto, (ii) with respect to the Registration Statement or any amendment or supplement thereto, the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading or (iii) with respect to any Preliminary Prospectus, any Issuer Free Writing Prospectus or any amendment or supplement thereto, the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading or (iii) with respect to any Preliminary Prospectus, any Issuer Free Writing Prospectus or any amendment or supplement thereto, the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading in the light of the circumstances under which they were made; *provided, however*, that the Company will not be liable in any such case to the extent that any such loss, claim, damage or liability arises out of or is based upon an untrue statement or alleged untrue statement, or omission or alleged omission made in the Registration

-16-

Statement, any Preliminary Prospectus, any Issuer Free Writing Prospectus, the Prospectus, or such amendment or supplement, in reliance upon and in conformity with written information furnished to the Company through the Representatives specifically for use therein, it being understood and agreed that the only such information furnished by any Underwriter consists of the information described as such in Section 13; and

(ii) to reimburse each Underwriter, each Underwriters' directors and officers, and each such controlling person upon demand for any legal or other out-of-pocket expenses reasonably incurred by such Underwriter or such controlling person in connection with investigating or defending any such loss, claim, damage or liability, action or proceeding or in responding to a subpoena or governmental inquiry related to the offering of the Notes, whether or not such Underwriter or controlling person is a party to any action or proceeding. In the event that it is finally judicially determined that the Underwriters were not entitled to receive payments for legal and other expenses pursuant to this subparagraph, the Underwriters will promptly return all sums that had been advanced pursuant hereto.

(b) Each Underwriter severally and not jointly will indemnify and hold harmless the Company, each of its directors, each of its officers who have signed the Registration Statement and each person, if any, who controls the Company within the meaning of Section 15 of the Act or Section 20 of the Exchange Act, against any losses, claims, damages or liabilities to which the Company or any such director, officer or controlling person may become subject under the Act or otherwise, insofar as such losses, claims, damages or liabilities (or actions or proceedings in respect thereof) arise out of or are based upon (i) any untrue statement or alleged untrue statement of any material fact contained in the Registration Statement, any Preliminary Prospectus, any Issuer Free Writing Prospectus, the Prospectus or any amendment or supplement thereto, (ii) with respect to the Registration Statement or any amendment or supplement thereto, the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading or (iii) with respect to any Preliminary Prospectus, any Issuer Free Writing Prospectus, the Prospectus or any amendment or supplement thereto, the omission or the alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading in the light of the circumstances under which they were made; and will reimburse any legal or other expenses reasonably incurred by the Company or any such director, officer or controlling person in connection with investigating or defending any such loss, claim, damage, liability, action or proceeding; provided, however, that each Underwriter will be liable in each case to the extent, but only to the extent, that such untrue statement or alleged untrue statement or omission or alleged omission has been made in the Registration Statement, any Preliminary Prospectus, any Issuer Free Writing Prospectus, the Prospectus or such amendment or supplement, in reliance upon and in conformity with written information furnished to the Company through the Representatives specifically for use therein, it being understood and agreed that the only such information furnished by any Underwriter consists of the information described as such in Section 13. This indemnity agreement will be in addition to any liability which such Underwriter may otherwise have.

(c) In case any proceeding (including any governmental investigation) shall be instituted involving any person in respect of which indemnity may be sought pursuant to this Section 8, such person (the "indemnified party") shall promptly notify the person against whom such indemnity may be sought (the "indemnifying party") in writing. No indemnification provided for in Section 8(a) or (b) shall be available to any party who shall fail to give notice as provided in this Section 8(c) if the party to whom notice was not given was unaware of the proceeding to which such notice would have related and was materially prejudiced by the failure to give such notice, but the failure to give such notice shall not relieve the indemnifying party or parties from any liability which it or they may have to the indemnified party for contribution or otherwise than on account of the provisions of Section 8(a) or (b). In case any such proceeding shall be brought against any indemnified party and it shall notify the indemnifying party of the

-17-

commencement thereof, the indemnifying party shall be entitled to participate therein and, to the extent that it shall wish, jointly with any other indemnifying party similarly notified, to assume the defense thereof, with counsel reasonably satisfactory to such indemnified party and shall pay as incurred the reasonable fees and disbursements of such counsel related to such proceeding. In any such proceeding, any indemnified party shall have the right to retain its own counsel at its own expense. Notwithstanding the foregoing, the indemnifying party shall pay as incurred (or within 30 days of presentation) the reasonable fees and expenses of the counsel retained by the indemnified party in the event (i) the indemnifying party and the indemnified party shall have mutually agreed to the retention of such counsel, (ii) the named parties to any such proceeding (including any impleaded parties) include both the indemnifying party and the indemnified party, and in the judgment of counsel for the indemnified party, representation of both parties by the same counsel would be inappropriate due to actual or potential differing interests between them or that there may be legal defenses available to such indemnified party and/or the other indemnified parties that are different from or additional to those available to the indemnifying party or (iii) the indemnifying party shall have failed to assume the defense and employ counsel acceptable to the indemnified party within a reasonable period of time after notice of commencement of the action; provided, however, that the indemnifying party shall not be responsible for the expenses of more than one separate counsel for the indemnified parties (in addition to one local counsel in the applicable jurisdiction) in connection with any one action or separate but similar or related actions arising out of the same general allegations or circumstances. Such firm shall be designated in writing by you in the case of parties indemnified pursuant to Section 8(a) and by the Company in the case of parties indemnified pursuant to Section 8(b). The indemnifying party shall not be liable for any settlement of any proceeding effected without its written consent but if settled with such consent or if there be a final judgment for the plaintiff, the indemnifying party agrees to indemnify the indemnified party from and against any loss or liability by reason of such settlement or judgment. In addition, the indemnifying party will not, without the prior written consent of the indemnified party, settle or compromise or consent to the entry of any judgment in any pending or threatened claim, action or proceeding of which indemnification may be sought hereunder (whether or not any indemnified party is an actual or potential party to such claim, action or proceeding) unless such settlement, compromise or consent (i) includes an unconditional release of each indemnified party from all liability arising out of such claim, action or proceeding and (ii) does not include a statement as to or an admission of fault, culpability or a failure to act, by or on behalf of any indemnified party.

(d) To the extent the indemnification provided for in this Section 8 is unavailable to or insufficient to hold harmless an indemnified party under Section 8(a) or (b) above in respect of any losses, claims, damages or liabilities (or actions or proceedings in respect thereof) referred to therein, then each indemnifying party shall contribute to the amount paid or payable by such indemnified party as a result of such losses, claims, damages or liabilities (or actions or proceedings in respect thereof) in such proportion as is appropriate to reflect the relative benefits received by the Company on the one hand and the Underwriters on the other from the offering of the Notes. If, however, the allocation provided by the immediately preceding sentence is not permitted by applicable law then each indemnifying party shall contribute to such amount paid or payable by such indemnified party in such proportion as is appropriate to reflect the relative benefits received by the Company on the one hand and the Underwriters on the other in connection with the statements or omissions which resulted in such losses, claims, damages or liabilities (or actions or proceedings in respect thereof), as well as any other relevant equitable considerations. The relative benefits received by the Company on the one hand and the Underwriters on the other shall be deemed to be in the same proportion as the total net proceeds from the offering (before deducting expense) received by the Company bear to the total underwriting discounts and commissions received by the Underwriters, in each case as set forth in the table on the cover page of the Prospectus. The relative fault shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Company on the one hand or the Underwriters on the other and the parties' relative intent, knowledge, access to information and opportunity to correct or

-18-

The Company and the Underwriters agree that it would not be just and equitable if contributions pursuant to this Section 8(d) were determined by pro rata allocation (even if the Underwriters were treated as one entity for such purpose) or by any other method of allocation which does not take account of the equitable considerations referred to above in this Section 8(d). The amount paid or payable by an indemnified party as a result of the losses, claims, damages or liabilities (or actions or proceedings in respect thereof) referred to above in this Section 8(d) shall be deemed to include any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending any such action or claim. Notwithstanding the provisions of this subsection (d), (i) no Underwriter shall be required to contribute any amount in excess of the underwriting discounts and commissions applicable to the Notes purchased by such Underwriter, and (ii) no person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Act) shall be entitled to contribute are several in proportion to their respective underwriting obligations and not joint.

(e) In any proceeding relating to the Registration Statement, any Preliminary Prospectus, any Issuer Free Writing Prospectus, the Prospectus or any supplement or amendment thereto, each party against whom contribution may be sought under this Section 8 hereby consents to the jurisdiction of any court having jurisdiction over any other contributing party, agrees that process issuing from such court may be served upon it by any other contributing party and consents to the service of such process and agrees that any other contributing party may join it as an additional defendant in any such proceeding in which such other contributing party is a party.

(f) Any losses, claims, damages, liabilities or expenses for which an indemnified party is entitled to indemnification or contribution under this Section 8 shall be paid by the indemnifying party to the indemnified party as such losses, claims, damages, liabilities or expenses are incurred. The indemnity and contribution agreements contained in this Section 8 and the representations and warranties of the Company set forth in this Agreement shall remain operative and in full force and effect, regardless of (i) any investigation made by or on behalf of any Underwriter, its directors or officers or any person controlling any Underwriter, the Company, its directors or officers or any persons controlling the Company, (ii) acceptance of any Notes and payment therefor hereunder, and (iii) any termination of this Agreement. A successor to any Underwriter, its directors or officers or any person controlling the Company, shall be entitled to the benefits of the indemnity, contribution and reimbursement agreements contained in this Section 8.

9. Default by Underwriters.

If on the Closing Date any Underwriter shall fail to purchase and pay for the principal amount of the Notes which such Underwriter has agreed to purchase and pay for on such date (otherwise than by reason of any default on the part of the Company), you, as Representatives of the Underwriters, shall use your reasonable efforts to procure within 36 hours thereafter one or more of the other Underwriters, or any others, to purchase from the Company such principal amounts as may be agreed upon, and upon the terms set forth herein, the Notes which the defaulting Underwriter or Underwriters failed to purchase. If during such 36 hours you, as such Representatives, shall not have procured such other Underwriters, or any others, to purchase the principal amount of the Notes agreed to be purchased by the defaulting Underwriter or Underwriters, then (a) if the aggregate principal amount of the Notes to be purchased on the Closing Date, the other Underwriters shall be obligated, severally, in proportion to the respective principal amounts of the Notes which they are obligated to purchase the

-19-

Notes which such defaulting Underwriter or Underwriters failed to purchase, or (b) if the aggregate principal amount of the Notes with respect to which such default shall occur exceeds 10% of the aggregate principal amount of the Notes to be purchased on the Closing Date, the Company or you as the Representatives of the Underwriters will have the right, by written notice given within the next 36-hour period to the parties to this Agreement, to terminate this Agreement without liability on the part of the non-defaulting Underwriters or of the Company, except to the extent provided in Sections 6 and 8 hereof. In the event of a default by any Underwriter or Underwriters, as set forth in this Section 9, the Closing Date may be postponed for such period, not exceeding seven days, as you, as Representatives, may determine in order that the required changes in the Registration Statement, the General Disclosure Package or in the Prospectus or in any other documents or arrangements may be effected. The term "Underwriter" includes any person substituted for a defaulting Underwriter. Any action taken under this Section 9 shall not relieve any defaulting Underwriter from liability in respect of any default of such Underwriter under this Agreement.

10. Notices.

All communications hereunder shall be in writing and, except as otherwise provided herein, will be mailed, delivered or telecopied and confirmed as follows: if to the Underwriters, to the Representatives at Deutsche Bank Securities Inc., 60 Wall Street, New York, New York 10005, Attention: Debt Capital Markets Syndicate Desk, fax: (212) 469-7875, with a copy to the attention of the General Counsel, 36th Floor (fax: (646) 374-1071); and Wells Fargo Securities, LLC, 550 South Tryon Street, 5th Floor, Charlotte, North Carolina 28202, Attention: Transaction Management (fax: (704) 410-0326); if to the Company, to the address set forth in the Registration Statement.

11. <u>Termination</u>.

This Agreement may be terminated by you by notice to the Company (a) at any time prior to the Closing Date if any of the following has occurred: (i) since the date of the most recent financial statements included or incorporated by reference in the Registration Statement, the General Disclosure Package and the Prospectus, any material adverse change or any development involving a prospective material adverse change in or affecting the earnings, business, management, properties, assets, rights, operations, condition (financial or otherwise) or prospects of the Company and its subsidiaries taken as a whole, whether or not arising in the ordinary course of business, (ii) any outbreak or escalation of hostilities or declaration of war or national emergency or other national or international calamity or crisis if the effect of such outbreak, escalation, declaration, emergency, calamity or crisis on the financial markets of the United States would, in your judgment, make it impracticable or inadvisable to market the Notes or to enforce contracts for the sale of the Notes, (iii) any material change in economic or political conditions or international or United States financial markets, if the effect of such change would, in your judgment, make it impracticable or inadvisable to market the Notes or to enforce (iv) suspension of trading in securities generally on the New York Stock Exchange, the NYSE American LLC or the Nasdaq Global Market or limitation on prices (other than limitations on hours or numbers of days of trading) for securities generally on any such Exchange, (v) the declaration of a banking moratorium by United States or New York State authorities, (vi) any downgrading, or placement on any watch list for possible downgrading, in the rating of the Company or any of its debt securities by any "nationally recognized statistical rating organization" (as defined in Section 3(a)(62) of the Exchange Act) or (vii) the suspension of trading of the Company's common stock by the New York Stock Exchange, the Commissi

-20-

12. <u>Successors</u>.

This Agreement has been and is made solely for the benefit of the Underwriters and the Company and their respective successors, executors, administrators, heirs and assigns, and the officers, directors and controlling persons referred to herein, and no other person will have any right or obligation hereunder. No purchaser of any of the Notes from any Underwriter shall be deemed a successor or assign merely because of such purchase.

13. Information Provided by Underwriters.

The Company and the Underwriters acknowledge and agree that the only information furnished or to be furnished by any Underwriter to the Company for inclusion in the Registration Statement, any Preliminary Prospectus, any Issuer Free Writing Prospectus or the Prospectus consists of (i) the information set forth in the last paragraph on the front cover page (regarding delivery of the Notes) of the Prospectus, (ii) the names of the Underwriters on the front and back covers of, and in the first paragraph under the caption "Underwriting; Conflicts of Interest" in, the Prospectus and (iii) the information set forth in the first and second sentences of the fifth paragraph (pg S-27), the third and fourth sentences of the seventh paragraph (pg S-27) and the ninth paragraph (pg S-28) under the caption "Underwriting; Conflicts of Interest" in the Prospectus.

14. No Advisory or Fiduciary Responsibility.

The Company acknowledges and agrees that (i) the purchase and sale of the Notes pursuant to this Agreement is an arm's length commercial transaction between the Company, on the one hand, and the Underwriters, on the other, (ii) in connection therewith and with the process leading to such transaction each Underwriter is acting solely as a principal and not the agent or fiduciary of the Company, (iii) no Underwriter has assumed an advisory or fiduciary responsibility in favor of the Company with respect to the offering contemplated hereby or the process leading thereto (irrespective of whether such Underwriter has advised or is currently advising the Company on other matters) or any other obligation to the Company except the obligations expressly set forth in this Agreement and (iv) the Company has consulted its own legal and financial advisors to the extent it deemed appropriate. The Company agrees that it will not claim that any Underwriter has rendered advisory services of any nature or respect, or owes a fiduciary or similar duty to the Company, in connection with such transaction or the process leading thereto.

15. Recognition of the U.S. Special Resolution Regimes.

(a) In the event that any Underwriter that is a Covered Entity becomes subject to a proceeding under a U.S. Special Resolution Regime, the transfer from such Underwriter of this Agreement, and any interest and obligation in or under this Agreement, will be effective to the same extent as the transfer would be effective under the U.S. Special Resolution Regime if this Agreement, and any such interest and obligation, were governed by the laws of the United States or a state of the United States.

(b) In the event that any Underwriter that is a Covered Entity or a BHC Act Affiliate of such Underwriter becomes subject to a proceeding under a U.S. Special Resolution Regime, Default Rights under this Agreement that may be exercised against such Underwriter are permitted to be exercised to no greater extent than such Default Rights could be exercised under the U.S. Special Resolution Regime if this Agreement were governed by the laws of the United States or a state of the United States.

-21-

(c) For the purpose of this Section 15:

"BHC Act Affiliate" has the meaning assigned to the term "affiliate" in, and shall be interpreted in accordance with, 12 U.S.C. § 1841(k).

"Covered Entity" means any of the following:

- (i) a "covered entity" as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 252.82(b);
- (ii) a "covered bank" as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 47.3(b); or
- (iii) a "covered FSI" as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 382.2(b).

"Default Right" has the meaning assigned to that term in, and shall be interpreted in accordance with, 12 C.F.R. §§ 252.81, 47.2 or 382.1, as applicable.

"U.S. Special Resolution Regime" means each of (i) the Federal Deposit Insurance Act and the regulations promulgated thereunder and (ii) Title II of the Dodd-Frank Wall Street Reform and Consumer Protection Act and the regulations promulgated thereunder.

16. Counterparts.

This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Delivery of an executed counterpart of a signature page to this Agreement by telecopier, facsimile or other electronic transmission (i.e., a "pdf" or "tif") shall be effective as delivery of a manually executed counterpart thereof.

17. Survival Clause.

The reimbursement, indemnification and contribution agreements contained in this Agreement and the representations, warranties and covenants in this Agreement shall remain in full force and effect regardless of (a) any termination of this Agreement, (b) any investigation made by or on behalf of any Underwriter or controlling person thereof, or by or on behalf of the Company or its directors or officers and (c) delivery of and payment for the Notes under this Agreement.

18. Governing Law.

This Agreement shall be governed by, and construed in accordance with, the law of the State of New York, including, without limitation, Section 5-1401 of the New York General Obligations Law.

[Signature Pages Follow]

```
-22-
```

If the foregoing letter is in accordance with your understanding of our agreement, please sign and return to us the enclosed duplicates hereof, whereupon it will become a binding agreement among the Company and the several Underwriters in accordance with its terms.

Very truly yours,

PACKAGING CORPORATION OF AMERICA

By: /s/ Pamela A. Barnes

The foregoing Underwriting Agreement is hereby confirmed and accepted as of the date first above written.

DEUTSCHE BANK SECURITIES INC. WELLS FARGO SECURITIES, LLC

As Representatives of the several Underwriters listed on Schedule I

By: Deutsche Bank Securities Inc.

By: /s/ Anguel Zaprianov Authorized Officer

By: /s/ John Han Authorized Officer

By: Wells Fargo Securities, LLC

By: /s/ Carolyn Hurley Authorized Officer

-23-

SCHEDULE I

Schedule of Underwriters

Underwriter	Amo	gregate Principal ount of 2029 Notes o be Purchased	Am	ggregate Principal ount of 2049 Notes to be Purchased
Deutsche Bank Securities Inc.	\$	130,000,000	\$	104,000,000
Wells Fargo Securities, LLC	\$	130,000,000	\$	104,000,000
BMO Capital Markets Corp.	\$	32,500,000	\$	26,000,000
BofA Securities, Inc.	\$	32,500,000	\$	26,000,000
Citigroup Global Markets Inc.	\$	32,500,000	\$	26,000,000
J.P. Morgan Securities LLC	\$	32,500,000	\$	26,000,000
PNC Capital Markets LLC	\$	32,500,000	\$	26,000,000
Siebert Williams Shank & Co., LLC	\$	32,500,000	\$	26,000,000
BB&T Capital Markets, a division of BB&T Securities, LLC	\$	15,000,000	\$	12,000,000
Mizuho Securities USA LLC	\$	15,000,000	\$	12,000,000
U.S. Bancorp Investments, Inc.	\$	15,000,000	\$	12,000,000
Total	\$	500,000,000	\$	400,000,000

Sch. I-1

SCHEDULE II

1. Pricing Term Sheet, dated November 18, 2019, containing the terms of the notes (in substantially the form attached hereto).

Sch. II-1

Filed pursuant to Rule 433 Dated November 18, 2019

Relating to Preliminary Prospectus Supplement dated November 18, 2019 to Prospectus dated December 6, 2017 Registration Statement No. 333-221917

Packaging Corporation of America

\$500,000,000 3.000% Senior Notes Due 2029 (the "2029 Notes")

\$400,000,000 4.050% Senior Notes Due 2049 (the "2049 Notes")

Pricing Term Sheet

November 18, 2019

Terms Applicable to Each Series of Notes

Issuer:	Packaging Corporation of America
Ratings (Moody's / S&P)*:	
Security Type:	Senior Unsecured Notes
Pricing Date:	November 18, 2019
Settlement Date:	November 21, 2019 (T+3)
Interest Payment Dates:	Semi-annually on June 15 and December 15 of each year, beginning on June 15, 2020
Record Dates:	June 1 and December 1
Terms Applicable to the 2029 Notes	
Principal Amount:	\$500,000,000
Maturity Date:	December 15, 2029
Benchmark Treasury:	1.750% due November 15, 2029
Benchmark Treasury Price / Yield:	99-13 / 1.815%
Spread to Benchmark Treasury:	+120 basis points
Yield to Maturity:	3.015%
Coupon:	3.000%
Public Offering Price:	99.869% of the principal amount, plus accrued interest, if any, from the settlement date
Optional Redemption	
Make-Whole Call:	Treasury Rate plus 20 basis points (prior to September 15, 2029)
Par Call:	On or after September 15, 2029
CUSIP / ISIN:	695156 AU3 / US695156AU37

Exh. A-1

Terms Applicable to the 2049 Notes

Principal Amount:	\$400,000,000
Maturity Date:	December 15, 2049
Benchmark Treasury:	2.250% due August 15, 2049
Benchmark Treasury Price / Yield:	98-29 / 2.301%
Spread to Benchmark Treasury:	+180 basis points
Yield to Maturity:	4.101%
Coupon:	4.050%
Public Offering Price:	99.120% of the principal amount, plus accrued interest, if any, from the settlement date
Optional Redemption	
Make-Whole Call:	Treasury Rate plus 30 basis points (prior to June 15, 2049)
Par Call:	On or after June 15, 2049
CUSIP / ISIN:	695156 AV1 / US695156AV10
Joint Book-Running Managers:	Deutsche Bank Securities Inc. Well Fargo Securities, LLC
Co-Managers:	BMO Capital Markets Corp. BofA Securities, Inc. Citigroup Global Markets Inc. J.P. Morgan Securities LLC PNC Capital Markets LLC Siebert Williams Shank & Co., LLC BB&T Capital Markets, a division of BB&T Securities, LLC Mizuho Securities USA LLC U.S. Bancorp Investments, Inc.

* Note: A securities rating is not a recommendation to buy, sell or hold securities and may be subject to revision or withdrawal at any time.

The issuer has filed a registration statement (including a prospectus) and a preliminary prospectus supplement with the SEC for the offering to which this communication relates. Before you invest, you should read the prospectus in that registration statement, the preliminary prospectus supplement and other documents the issuer has filed with the SEC for more complete information about the issuer and this offering. You may get these documents for free by visiting EDGAR on the SEC web site at www.sec.gov. Alternatively, the issuer, any underwriter or any dealer participating in the offering will arrange to send you the prospectus and the prospectus supplement if you request it by calling (toll free) either of the representatives of the underwriters:

Deutsche Bank Securities Inc.800-503-4611Wells Fargo Securities, LLC800-645-3751

Any disclaimers or other notices that may appear below are not applicable to this communication and should be disregarded. Such disclaimers were automatically generated as a result of this communication being sent via Bloomberg or another email system.

-2-

Opinion Matters covered by Mayer Brown LLP, counsel for the Company

(i) the Company is validly existing in good standing under the laws of the State of Delaware;

(ii) the Company has the corporate power and authority to own or lease its properties and conduct its business as described in the General Disclosure Package and the Prospectus and to execute, deliver and perform its obligations under the Transaction Documents;

(iii) the Underwriting Agreement has been duly authorized, executed and delivered by the Company;

(iv) the Indenture has been duly authorized, executed and delivered by the Company and constitutes a valid and legally binding agreement of the Company enforceable against the Company in accordance with its terms, except as enforceability may be limited by applicable bankruptcy, insolvency or similar laws affecting the enforcement of creditors' rights generally or by equitable principles relating to enforceability; the Indenture has been duly qualified under the Trust Indenture Act;

(v) the Securities have been duly authorized, executed and delivered and, assuming the due authentication thereof in the manner provided for in the Indenture, and delivery and payment as provided in the Underwriting Agreement, constitute valid and legally binding obligations of the Company, entitled to the benefits of the Indenture and enforceable against the Company in accordance with the terms thereof, except as enforceability may be limited by applicable bankruptcy, insolvency or similar laws affecting the enforcement of creditors' rights generally or by equitable principles relating to enforceability;

(vi) the Company is not required to obtain any consent, approval, authorization or order of any governmental authority for the execution, delivery and performance by the Company of the Transaction Documents or the issuance and sale of the Securities under the Underwriting Agreement and the Indenture, except for such consent, approval, authorization or orders that have already been obtained and except that we express no opinion with respect to the Blue Sky laws of any state;

(vii) the execution and delivery by the Company of the Transaction Documents and the performance by the Company of its obligations thereunder do not and will not (i) violate any of the terms and provisions of the certificate of incorporation or bylaws of the Company, (ii) breach or result in a default under any of the agreements listed on <u>Schedule A</u> hereto (the "Specified Contracts") (provided that we express no opinion as to compliance with any financial covenant or test or cross-default provision in such Specified Contracts) or (iii) constitute a violation of applicable law, except, in each of the cases of clauses (ii) and (iii), for any such breach, default or violation that would not, individually or in the aggregate, reasonably be expected to have a material adverse effect on the condition (financial or otherwise), earnings, business or operations of the Company and its subsidiaries, taken as a whole, or materially impair the ability of the Company to perform its obligations under the Transaction Documents;

Exh. A-1

(viii) the statements in each of the General Disclosure Package and the Prospectus under the captions "Description of the Notes" and "Description of Debt Securities," in each case insofar as such statements constitute a summary of the legal matters, documents or proceedings referred to therein, fairly present and summarize, in all material respects, the matters referred to therein;

(ix) the statements in the General Disclosure Package and the Prospectus under the caption "Material United States Federal Income Tax Considerations," insofar as such statements constitute a summary of the United States federal tax laws and the rules and regulations thereunder referred to therein, are accurate and fairly present and summarize in all material respects the United States federal tax laws and the rules and regulations thereunder referred to therein;

(x) each document filed pursuant to the Exchange Act and incorporated by reference in the Registration Statement and the Prospectus (except for the financial statements and financial schedules and other financial and statistical or accounting data included or incorporated by reference therein, as to which we do not express any opinion) appeared on its face to be appropriately responsive as of its filing date in all material respects to the requirements of the Exchange Act and the applicable rules and regulations of the Commission thereunder, and the Registration Statement and the Prospectus (except for the financial statements and financial schedules and other financial and statistical data included or incorporated by reference therein and except for that part of the Registration Statement that constitutes the Form T-1, as to which we do not express any opinion) appear on their face to be appropriately responsive in all material respects to the requirements of the Securities Act and the applicable rules and regulations of the Commission thereunder;

(xi) the Company is not and, after giving effect to the offering and sale of the Securities and the application of the proceeds thereof as described in the General Disclosure Package and the Prospectus, will not be an "investment company" within the meaning of the Investment Company Act of 1940, as amended;

(xii) the Registration Statement has become effective under the Securities Act; to our knowledge, no stop order suspending the effectiveness of the Registration Statement is in effect and no proceedings for that purpose or pursuant to Section 8A of the Securities Act have been instituted or are pending or threatened under the Securities Act; and

- (xiii) no facts have come to our attention that caused us to believe that:
 - a. the Registration Statement, as of its most recent effective date pursuant to, and within the meaning of, Rule 430(B)(f)(2) under the Securities Act, contained an untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary to make the statements therein not misleading;
 - b. the General Disclosure Package, as of the Applicable Time, contained an untrue statement of a material fact or omitted to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; or
 - c. the Prospectus, as of its date or at the date hereof, contained or contains an untrue statement of a material fact or omitted or omits to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading.

-2-

Opinion Matters covered by Kent A. Pflederer, Esq., General Counsel of the Company

- 1. The Company has been duly qualified as a foreign corporation for the transaction of business and is in good standing under the laws of each jurisdiction other than the State of Delaware in which it owns or leases properties or conducts any business so as to require such qualification, except for such jurisdictions where the failure to be so qualified or in good standing would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.
- 2. Boise White Paper, L.L.C., which is the sole significant subsidiary (as defined in Rule 405 under the Securities Act) of the Company (the "Significant Subsidiary"), has been duly organized and is validly existing as a limited liability company in good standing under the laws of the State of Delaware.
- 3. All of the issued equity interests of the Significant Subsidiary have been duly and validly authorized and issued, are fully paid and non-assessable, and are owned directly or indirectly by the Company, free and clear of all liens, encumbrances, equities or claims.
- 4. To my knowledge and other than as set forth in the Time of Sale Prospectus and the Prospectus, there are no legal or governmental proceedings pending to which the Company or any of its subsidiaries is a party or of which any property of the Company or any of its subsidiaries is the subject which would reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect; and, to my knowledge, no such proceedings are threatened or contemplated by governmental authorities or threatened by others.
- 5. The Company is not (A) in violation of its certificate of incorporation or by-laws or (B) to my knowledge, in default in the performance or observance of any obligation, agreement, covenant or condition contained in any contract identified on <u>Schedule I</u> hereto, except, in the case of this clause (B), for such defaults as would not, individually or in the aggregate, have a Material Adverse Effect.
- 6. I do not know of any contracts or documents required to be filed as exhibits to or incorporated by reference in the Registration Statement or described in the Registration Statement or the Prospectus which are not so filed, incorporated by reference or described as required, and such contracts and documents as are summarized in the Registration Statement or the Prospectus are fairly summarized in all material respects.

Exh. B-1

PACKAGING CORPORATION OF AMERICA

OFFICERS' CERTIFICATE

Dated as of November 21, 2019

Pursuant to the authority granted by the Board of Directors of Packaging Corporation of America (the "Company") in its Resolutions of the Board of Directors of the Company, dated November 12, 2019 and pursuant to Section 301 of the Indenture, dated as of July 21, 2003 (the "Indenture"), by and between the Company and U.S. Bank National Association, as trustee (the "Trustee"), there is hereby created two new series of Securities with the terms set forth below. Capitalized terms used but not otherwise defined herein shall, unless specified otherwise, have the meanings assigned to them in the Indenture.

(a) The Securities shall be designated as the "3.000% Senior Notes due 2029" (the "2029 Notes") and the "4.050% Senior Notes due 2049" (the "2049 Notes" and, together with the 2029 Notes, the "Notes").

(b) The aggregate principal amount of 2029 Notes that may be authenticated and delivered under the Indenture is initially limited to U.S. \$500,000,000 and the aggregate principal amount of 2049 Notes that may be authenticated and delivered under the Indenture is initially limited to U.S. \$400,000,000, except for Notes authenticated and delivered upon registration of transfer of, or in exchange for, or in lieu of, other Notes pursuant to Section 304, 305, 306, 905 or 1107 of the Indenture. However, the Notes may be reopened by the Company for the issuance of additional Notes, so long as any such additional Notes have the same form and terms (other than the date of issuance and, under certain circumstances, the issue price and the date from which interest thereon will begin to accrue), and carry the same right to receive accrued and unpaid interest, as the Notes theretofore issued; provided, however, that notwithstanding the foregoing, the Notes may not be reopened if the Company has effected satisfaction and discharge with respect to the Notes pursuant to Section 401 of the Indenture or defeasance or covenant defeasance with respect to the Notes pursuant to Section 402 of the Indenture; and provided, further, that no additional Notes may be issued at a price that would cause such additional Notes to have "original issue discount" within the meaning of Section 1273 of the U.S. Internal Revenue Code of 1986, as amended.

(c) The Notes shall be issuable only as Registered Securities without Coupons. The Registered Securities are not exchangeable for Bearer Securities.

(d) The Notes shall be issued in the form of one or more permanent global Notes, the initial Depository for the global Notes shall be The Depository Trust Company and the depository arrangements shall be those employed by whosoever shall be the Depository with respect to the global Notes from time to time. Interests in global Notes may only be exchanged for definitive certificated Notes as provided in Section 305 of the Indenture and in accordance with the procedures of The Depository Trust Company. Any endorsement of any global Note to reflect the amount, or any increase or decrease in the amount, of Outstanding Notes represented thereby shall be made by the Trustee, and the Trustee shall be entitled to make endorsements on any global Note or on its books and records reflecting any increases or decreases in the principal

amount of Notes evidenced thereby, and the Persons entitled to give instructions and to take other actions with respect to any global Notes as contemplated by the first paragraph of Section 203 of the Indenture shall be the Trustee and the Depository.

(e) The Stated Maturity of the 2029 Notes on which the principal thereof is due and payable shall be December 15, 2029. The Stated Maturity of the 2049 Notes on which the principal thereof is due and payable shall be December 15, 2049.

(f) The principal of the 2029 Notes shall bear interest at the rate of 3.000% per annum and the principal of the 2049 Notes shall bear interest at the rate of 4.050% per annum, each from and including November 21, 2019, or from and including the most recent date to which interest has been paid or duly provided for, to, but not including, the applicable Interest Payment Date or Maturity, as the case may be. Interest shall be payable semi-annually in arrears on June 15 and December 15 (each, an "Interest Payment Date") of each year, beginning on June 15, 2020, to the Persons in whose names the Notes (or one or more Predecessor Securities of such series) are registered at the close of business on June 1 and December 1, as applicable, prior to such Interest Payment Date (each, a "Regular Record Date"), regardless of whether such Regular Record Date is a Business Day. Interest on the Notes shall be computed on the basis of a 360-day year consisting of twelve 30-day months.

(g) The Borough of Manhattan, The City of New York, is hereby designated as a Place of Payment; and the Company hereby appoints the Trustee, acting through its Corporate Trust Office in the Borough of Manhattan, The City of New York designated from time to time for such purpose, as the Company's agent for the purposes specified in Section 1002 of the Indenture; provided, however, that, subject to Section 1002 of the Indenture, the Company may at any time remove the Trustee as its Office or Agency in the Borough of Manhattan, The City of New York designated for such purposes and may from time to time designate one or more other Offices or Agencies for such purposes and may from time to time rescind such designations, so long as the Company shall at all times maintain an Office or Agency for such purposes in the Borough of Manhattan, The City of New York.

(h) The 2029 Notes shall be redeemable on the terms and subject to the conditions set forth in the form of Note attached hereto as <u>Exhibit A</u> and in the Indenture. The 2049 Notes shall be redeemable on the terms and subject to the conditions set forth in the form of Note attached hereto as <u>Exhibit</u> <u>B</u> and in the Indenture.

(i) The Company shall be required to offer to repurchase the Notes on the terms and subject to the conditions set forth in the respective forms of Notes attached hereto as <u>Exhibit A</u> and <u>Exhibit B</u> and in the Indenture; provided that nothing in this Certificate shall limit the right of the Trustee or the respective Holders of the Notes to declare the principal of, and accrued and unpaid interest on, such Notes to be immediately due and payable as provided in Article Five of the Indenture. The Notes shall not be subject to a sinking fund or analogous provision.

- (j) The Notes shall be issuable in denominations of U.S. \$2,000 and integral multiples of U.S. \$1,000 in excess thereof.
- (k) The Notes shall not be convertible into or exchangeable for other securities.

(l) Upon declaration of acceleration of the Notes' Maturity pursuant to Section 502 of the Indenture, the principal amount of the Notes and any accrued and unpaid interest thereon shall be due and payable.

(m) The principal of, premium, if any, and interest on the Notes shall be payable in U.S. Dollars.

(n) The amount of payments of principal of and interest on the Notes shall not be determined with reference to an index or formula or other method or methods other than as set forth in the respective forms of Notes attached hereto as <u>Exhibit A</u> and <u>Exhibit B</u>.

(o) The Notes and the Holders thereof shall have the benefit of the additional covenants set forth in the respective forms of Notes attached hereto as <u>Exhibit A</u> and <u>Exhibit B</u>, and Section 1010 of the Indenture shall not be applicable with respect to any such additional covenants.

(p) The Notes shall be subject to satisfaction and discharge pursuant to Section 401 of the Indenture and shall be subject to defeasance and covenant defeasance pursuant to Sections 402(2) and 402(3), respectively, of the Indenture, provided that (i) the Company may effect satisfaction and discharge pursuant to Section 401 of the Indenture and defeasance and covenant defeasance pursuant to Sections 402(2) and 402(3), respectively, of the Indenture only with respect to all (and not less than all) of the Outstanding Notes, as the case may be, and (ii) the only covenants which, for purposes of the Notes, shall be subject to covenant defeasance are the covenants set forth in clause (ii) of Section 1007 of the Indenture and Sections 1005, 1006, 1008 and 1009 of the Indenture.

- (q) The Notes shall not be issued upon the exercise of any warrants.
- (r) The global Notes shall be issued in book-entry form.

(s) The Company will not pay Additional Amounts on the Notes. To the extent that any provision of the Indenture or the Notes provides for the payment of interest on overdue principal of, or premium, if any, or interest on any Notes, then, to the extent permitted by law, interest on such overdue principal, premium, if any, and interest shall accrue at the rate of interest borne by such Notes, and, anything in the Indenture to the contrary notwithstanding, in the case of any requirement in the Indenture that the Company pay (or that the Trustee distribute) interest on overdue principal of, or premium, if any, or interest on the Notes, such payment or distribution shall only be required to the extent it is permitted by applicable law.

(t) Anything in the Indenture or the Notes to the contrary notwithstanding, payments of principal of and premium, if any and interest on global Notes shall be made in accordance with the procedures of the Depository as in effect from time to time, which procedures currently require that such payments be made by wire transfer of immediately available funds.

(u) As used in the Indenture with respect to the Notes and in the certificates evidencing the Notes, all references to "premium" on the Notes shall mean any amounts (other than accrued interest) payable upon redemption of any Notes in excess of 100% of the principal amount of such Notes.

(v) The Notes shall have such additional terms and provisions as are set forth in the forms of Notes attached hereto as <u>Exhibit A</u> and <u>Exhibit B</u> and shall be in substantially such form.

* * * * *

IN WITNESS WHEREOF, the undersigned have executed this Certificate as of the date first above written.

PACKAGING CORPORATION OF AMERICA

By: /s/ Pamela A. Barnes

Name: Pamela A. Barnes Title: Senior Vice President — Finance and Controller

By: /s/ Kent A. Pflederer

Name: Kent A. Pflederer Title: Senior Vice President, General Counsel and Secretary THIS NOTE IS A GLOBAL SECURITY WITHIN THE MEANING OF THE INDENTURE HEREINAFTER REFERRED TO AND IS REGISTERED IN THE NAME OF A DEPOSITORY OR A NOMINEE THEREOF. THIS NOTE IS EXCHANGEABLE FOR NOTES REGISTERED IN THE NAME OF A PERSON OTHER THAN THE DEPOSITORY OR ITS NOMINEE ONLY IN THE LIMITED CIRCUMSTANCES DESCRIBED IN THE INDENTURE AND, UNLESS AND UNTIL IT IS EXCHANGED IN WHOLE OR IN PART FOR INDIVIDUAL NOTES REPRESENTED HEREBY, THIS GLOBAL NOTE MAY NOT BE TRANSFERRED EXCEPT AS A WHOLE BY THE DEPOSITORY TO A NOMINEE OF THE DEPOSITORY OR BY A NOMINEE OF THE DEPOSITORY TO THE DEPOSITORY OR ANOTHER NOMINEE OF THE DEPOSITORY OR BY THE DEPOSITORY OR ANY SUCH NOMINEE TO A SUCCESSOR DEPOSITORY OR A NOMINEE OF SUCH SUCCESSOR DEPOSITORY.

UNLESS THIS NOTE IS PRESENTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY, A NEW YORK CORPORATION ("DTC"), TO THE COMPANY (AS DEFINED BELOW) OR ITS AGENT FOR REGISTRATION OF TRANSFER, EXCHANGE OR PAYMENT, AND ANY NOTE ISSUED IS REGISTERED IN THE NAME OF CEDE & CO. OR IN SUCH OTHER NAME AS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC (AND ANY PAYMENT IS MADE TO CEDE & CO. OR TO SUCH OTHER ENTITY AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC), ANY TRANSFER, PLEDGE OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL INASMUCH AS THE REGISTERED OWNER HEREOF, CEDE & CO., HAS AN INTEREST HEREIN.

No.: 1

CUSIP No.: 695156 AU3 ISIN No.: US695156AU37 Principal Amount: \$500,000,000

PACKAGING CORPORATION OF AMERICA

3.000% SENIOR NOTES DUE 2029

Packaging Corporation of America, a corporation duly organized and existing under the General Corporation Law of the State of Delaware (hereinafter called the "Company," which term includes any successor under the Indenture referred to below), for value received, hereby promises to pay to Cede & Co., or registered assigns, the principal sum of FIVE HUNDRED MILLION DOLLARS (\$500,000,000) on December 15, 2029, and to pay interest thereon from and including November 21, 2019, or from and including the most recent date to which interest has been paid or duly provided for, to, but not including, the applicable Interest Payment Date (as defined below) or Maturity, as the case may be. The Company will pay interest semi-annually in arrears on June 15 and December 15 of each year (each, an "Interest Payment Date"), beginning on June 15, 2020, and at Maturity, at the rate of 3.000% per annum, until the principal hereof is paid or duly made available for payment. Interest on this Note shall be calculated on the basis of a 360-day year consisting of twelve 30-day months. The interest so payable and punctually paid or duly provided for on any Interest Payment Date will, as provided in such Indenture, be paid to the Person in whose name this Note (or one or more Predecessor Securities)

is registered at the close of business on June 1 or December 1, as applicable, (whether or not a Business Day) prior to such Interest Payment Date. Any such interest which is payable, but is not punctually paid or duly provided for, on any Interest Payment Date shall forthwith cease to be payable to the Person who was the Holder hereof on the relevant Regular Record Date by virtue of having been such Holder, and may be paid to the Person in whose name this Note (or one or more Predecessor Securities) is registered at the close of business on a Special Record Date for the payment of such Defaulted Interest to be fixed by the Trustee, notice whereof shall be given to the Holder of this Note not less than 10 days prior to such Special Record Date, or may be paid at any time in any other lawful manner not inconsistent with the requirements of any securities exchange on which the Notes may be listed, and upon such notice as may be required by such exchange, all as more fully provided in such Indenture.

Payment of the principal of and premium, if any, and the interest on this Note will be made at the office or agency of the Company maintained for that purpose in the Borough of Manhattan, The City of New York, in such coin or currency of the United States of America as at the time of payment is legal tender for payment of public and private debts; provided, however, that, at the option of the Company, interest may be paid by check mailed to the address of the Person entitled thereto as such address shall appear in the Security Register or by transfer to an account maintained by the payee with a bank located in the United States; and provided, further, that payments on global notes will be made to DTC, or its nominee.

This Note is one of a duly authorized issue of Securities of the Company (herein called the "Notes") issued and to be issued in one or more series under an Indenture, dated as of July 21, 2003 (the "Indenture"), between the Company and U.S. Bank National Association, as trustee (herein called the "Trustee," which term includes any successor trustee under the Indenture), to which Indenture and all indentures supplemental thereto reference is hereby made for a statement of the respective rights, limitations of rights, duties and immunities thereunder of the Company, the Trustee and the Holders of the Notes, and the terms upon which the Notes are, and are to be, authenticated and delivered. This Note is one of the series designated on the face hereof, initially limited (subject to exceptions provided in the Indenture) in aggregate principal amount to \$500,000,000, subject to the right of the Company, without the consent of the Holders of the Notes, to "reopen" such series and to issue additional Notes of such series on the terms and subject to the conditions provided in or pursuant to the Indenture.

At any time prior to the Par Call Date, the Notes may be redeemed by the Company, in whole or from time to time in part, at the option of the Company at a Redemption Price equal to the greater of (i) 100% of the principal amount of the Notes to be redeemed and (ii) the sum of the present values of the remaining scheduled payments of principal and interest on the Notes to be redeemed that would be due on the final maturity date of the Notes (assuming that the Notes matured on the Par Call Date) (exclusive of interest accrued to the applicable Redemption Date) discounted to such Redemption Date on a semi-annual basis (assuming a 360-day year consisting of twelve 30-day months) at the Treasury Rate plus 20 basis points, plus, in the case of both clause (i) and clause (ii) above, accrued and unpaid interest on the principal amount of the Notes being redeemed to, but not including, such Redemption Date; provided, however, that installments of interest whose Stated Maturity is on or prior to the Redemption Date will be payable to the Holders of the Notes (or one or more Predecessor Notes) registered as such at the close of business on the relevant Regular Record Dates according to their terms and the

provisions of the Indenture. In addition, at any time on or after the Par Call Date, the Notes may be redeemed by the Company, in whole or in part, at the option of the Company at a Redemption Price equal to 100% of the principal amount of the Notes to be redeemed, plus accrued and unpaid interest thereon to, but not including, the Redemption Date; provided, however, that installments of interest whose Stated Maturity is on or prior to the Redemption Date will be payable to the Holders of the Notes (or one or more Predecessor Notes) registered as such at the close of business on the relevant Regular Record Dates according to their terms and the provisions of the Indenture. Any such redemption shall be effected in accordance with the terms and conditions set forth in the Indenture.

Notice of any redemption will be mailed at least 15 days but not more than 45 days before the applicable Redemption Date to each Holder of the Notes to be redeemed at such Holder's registered address. Notices of redemption may be conditioned upon the consummation of a financing transaction or asset disposition (or a series of financing transactions or asset dispositions) in which part or all of the proceeds of such transaction will be used to redeem the Notes. In addition, if such redemption is subject to satisfaction of any such condition, the notice of redemption may state that, in the Company's discretion, the redemption date may be delayed until such time as such condition shall be satisfied, or such redemption may not occur and such notice may be rescinded in the event that such condition shall not have been satisfied by the redemption date, or the redemption date so delayed. If less than all the Notes are to be redeemed at the Company's option, the Trustee will select, in such manner as it deems fair and appropriate, the Notes (or portions thereof) to be redeemed. Unless the Company defaults in payment of the Redemption Price, on and after the applicable Redemption Date interest will cease to accrue on the Notes or portions thereof called for redemption on such Redemption Date.

If a Change of Control Triggering Event occurs, unless the Company has previously exercised its right to redeem the Notes as described above, the Company will make an offer to each Holder of Notes to repurchase all or any part (equal to \$2,000) or integral multiples of \$1,000 in excess thereof) of that Holder's Notes at a Repurchase Price in cash equal to 101% of the aggregate principal amount of Notes repurchased plus any accrued and unpaid interest on the Notes repurchased to, but not including, the applicable Repurchase Date. Within 30 days following any Change of Control Triggering Event or, at the option of the Company, prior to any Change of Control, but after the public announcement of an impending Change of Control, the Company will mail a notice to each Holder, with a copy to the Trustee, describing the transaction or transactions that constitute or may constitute the Change of Control Triggering Event and offering to repurchase the Notes on the Change of Control Triggering Event Repurchase Date specified in the notice, which date will be no earlier than 30 days and no later than 60 days from the date such notice is mailed. The notice shall, if mailed prior to the date of consummation of the Change of Control, state that the oiler to repurchase is conditioned on the Change of Control being consummated on or prior to the Repurchase Date specified in such notice.

The Company will comply with the requirements of Rule 14e-1 under the Securities Exchange Act of 1934 (the "Exchange Act") and any other securities laws and regulations thereunder, to the extent those laws and regulations are applicable in connection with the repurchase of the Notes as a result of a Change of Control Triggering Event. To the extent that the provisions of any securities laws or regulations conflict with the Change of Control Triggering Event provisions of the Notes, the Company will comply with the applicable securities laws and regulations and will not be deemed to have breached its obligations under the Change of Control Triggering Event provisions of the Notes by virtue of such conflict.

On the Change of Control Triggering Event Repurchase Date, the Company will, to the extent lawful: (a) accept for payment all Notes or portions of Notes (in minimum denominations of \$2,000 and integral multiples of \$1,000 in excess thereof) properly tendered pursuant to the Company's offer; (b) deposit with the Paying Agent an amount equal to the aggregate Repurchase Price in respect of all Notes or portions of Notes properly tendered; and (c) deliver or cause to be delivered to the Trustee the Notes properly accepted, together with an Officers' Certificate stating the aggregate principal amount of Notes being repurchased by the Company.

The Paying Agent will promptly mail or otherwise deliver to each Holder of Notes properly tendered the Repurchase Price for the Notes, and the Trustee will promptly authenticate and mail (or cause to be transferred by book-entry) to each Holder a new Note equal in principal amount to any unpurchased portion of any Notes surrendered; provided, that each new Note will be in a principal amount of \$2,000 or an integral multiple of \$1,000 in excess thereof.

The Company will not be required to make an offer to repurchase the Notes upon a Change of Control Triggering Event if a third party makes such an offer in the manner, at the times and otherwise in compliance with the requirements for an offer made by the Company and such third party purchases all Notes properly tendered and not withdrawn under its offer. An offer to repurchase the Notes upon a Change of Control Triggering Event may be made in advance of a Change of Control Triggering Event, if a definitive agreement is in place for a Change of Control at the time of the making of such an offer.

As used in this Note, the following terms have the meaning set forth below:

"Below Investment Grade Rating Event" occurs if the Notes cease to be rated Investment Grade by each of the Rating Agencies on any date from the earlier of (1) the occurrence of a Change of Control or (2) public notice of the Company's intention to effect a Change of Control, in each case until the end of the 60-day period following the earlier of (i) the occurrence of a Change of Control or (ii) public notice of the Company's intention to effect a Change of Control; provided, however, that if during such 60-day period one or more Rating Agencies has publicly announced that it is considering a possible downgrade of the Notes, then such 60-day period shall be extended for such time as the rating of the Notes by any Rating Agency remains under publicly announced consideration for possible downgrade. Notwithstanding the foregoing, a Below Investment Grade Rating Event otherwise arising by virtue of a particular reduction in rating shall not be deemed to have occurred in respect of a particular Change of Control (and thus shall not be deemed a Below Investment Grade Rating Event for purposes of the definition of Change of Control Triggering Event) if each Rating Agency making the reduction in rating to which this definition would otherwise apply does not announce or publicly confirm or inform the Trustee in writing at the Company's or the Trustee's request that the reduction was the result, in whole or in part, of any event or circumstance comprised of or arising as a result of, or in respect of, the applicable Change of Control (whether or not the applicable Change of Control shall have occurred at the time of the Below Investment Grade Rating Event).

"Change of Control" means the occurrence of any of the following:

- (1) the direct or indirect sale, lease, transfer, conveyance or other disposition (other than by way of merger or consolidation), in one or a series of related transactions, of all or substantially all of the properties or assets of the Company and its Subsidiaries taken as a whole to any "person" (as that term is used in Section 13(d)(3) of the Exchange Act) other than the Company or one of its Subsidiaries;
- (2) the adoption of a plan relating to the liquidation or dissolution of the Company;
- (3) the first day on which the majority of the members of the board of directors of the Company are not Continuing Directors;
- (4) the consummation of any transaction or series of related transactions (including, without limitation, any merger or consolidation) the result of which is that any "person" (as that term is used in Section 13(d)(3) of the Exchange Act) becomes the "beneficial owner" (as defined in Rules 13d-3 and 13d-5 under the Exchange Act), directly or indirectly, of more than 50% of the then outstanding shares of the Voting Stock of the Company, measured by voting power rather than number of shares; or
- (5) the Company consolidates with, or merges with or into, any "person" (as that term is used in Section 13(d)(3) of the Exchange Act), or any person consolidates with, or merges with or into, the Company, in any such event pursuant to a transaction in which any of the outstanding Voting Stock of the Company or any of the outstanding Voting Stock of such other person is converted into or exchanged for cash, securities or other property, other than any such transaction where the shares of the Voting Stock of the Company outstanding immediately prior to such transaction constitute, or are converted into or exchanged for, a majority of the Voting Stock of the surviving person immediately after giving effect to such transaction.

Notwithstanding the foregoing, a transaction or series of related transactions effected to create a holding company for the Company will not be deemed to involve a Change of Control under clause (4) above if (1) pursuant to such transaction or series of related transactions, the Company becomes a direct or indirect wholly owned subsidiary of such holding company and (2)(A) the direct or indirect holders of the Voting Stock of such holding company immediately following that transaction are substantially the same as the holders of the Voting Stock of the Company immediately prior to that transaction or (B) immediately following that transaction no "person" (as that term is used in Section 13(d)(3) of the Exchange Act) (other than a holding company satisfying the requirements of this sentence) is the "beneficial owner" (as defined in Rules 13d-3 and 13d-5 under the Exchange Act), directly or indirectly, of a majority of the Voting Stock of such holding company, measured by voting power rather than number of shares.

"Change of Control Triggering Event" means the occurrence of both a Change of Control and a Below Investment Grade Rating Event.

"Comparable Treasury Issue" means, with respect to any Redemption Date for the Notes, the United States Treasury security selected by the Independent Investment Banker as having a maturity comparable to the remaining term of the Notes (assuming, for this purpose, that the Notes mature on the Par Call Date) to be redeemed that would be utilized, at the time of selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the remaining term of the Notes.

"Comparable Treasury Price" means, with respect to any Redemption Date for the Notes, (i) the average of five Reference Treasury Dealer Quotations for such Redemption Date, after excluding the highest and lowest such Reference Treasury Dealer Quotations, (ii) if the Independent Investment Banker obtains fewer than five but more than one such Reference Treasury Dealer Quotations for such Redemption Date, the average of all such quotations or (iii) if the Independent Investment Banker obtains only one such Reference Treasury Dealer Quotation for such Redemption Date, that Reference Treasury Dealer Quotation.

"Continuing Directors" means, as of any date of determination, any member of the Company's board of directors who (1) was a member of such board of directors on the date of the issuance of the Notes; or (2) was nominated for election or elected to such board of directors with the approval of a majority of the Continuing Directors who were members of such board of directors at the time of such nomination or election (either by a specific vote or by approval of the Company's proxy statement in which such member was named as a nominee for election as a director).

"Independent Investment Banker" means, with respect to any Redemption Date for the Notes, either Deutsche Bank Securities Inc. or Wells Fargo Securities, LLC or their respective successors, whichever is selected by the Company, or, if all such firms or the respective successors, if any, to such firms, as the case may be, are unwilling or unable to select the Comparable Treasury Issue, an independent investment banking institution of national standing in the United States of America appointed by the Company.

"Investment Grade" means a rating of Baa3 or better by Moody's (or its equivalent under any successor rating categories of Moody's) and a rating of BBB- or better by S&P (or its equivalent under any successor rating categories of S&P) or the equivalent investment grade credit rating, from any additional Rating Agency or Rating Agencies.

"Moody's" means Moody's Investors Service, Inc. and its successors.

"Par Call Date" means September 15, 2029.

"Rating Agency" means (1) each of Moody's and S&P; and (2) if either Moody's or S&P ceases to rate the Notes or fails to make a rating of the Notes publicly available for reasons outside of the Company's control, a "nationally recognized statistical rating organization," within the meaning of Section 3(a)(62) of the Exchange Act, selected by the Company as a replacement agency for Moody's or S&P, or both, as the case may be.

"Reference Treasury Dealer" means, with respect to any Redemption Date for the Notes, each of (i) Deutsche Bank Securities Inc. and Wells Fargo Securities, LLC and their respective successors (provided, however, that if any such firm or any such successor, as the case may be, ceases to be a primary U.S. Government securities dealer in New York City (a "Primary Treasury Dealer"), the Company shall substitute therefor another Primary Treasury Dealer); and (ii) two other Primary Treasury Dealers selected by the Company.

"Reference Treasury Dealer Quotation" means, with respect to each Reference Treasury Dealer and any Redemption Date for the Notes, the average, as determined by the Independent Investment Banker, of the bid and asked prices for the Comparable Treasury Issue (expressed in each case as a percentage of its principal amount) quoted in writing to the Independent Investment Banker by such Reference Treasury Dealer at 5:00 p.m., New York City time, on the third Business Day preceding such Redemption Date.

"Repurchase Date," with respect to any Note or portion thereof to be repurchased, means the date fixed for such repurchase by or pursuant to the Indenture or such Note.

"Repurchase Price," with respect to any Note or portion thereof to be repurchased, means the price at which it is to be repurchased as determined by or pursuant to the Indenture or such Note.

"S&P" means Standard & Poor's Ratings Services, a division of The McGraw-Hill Companies, Inc., and its successors.

"Treasury Rate" means, with respect to any Redemption Date for the Notes, (i) the yield, under the heading that represents the average for the immediately preceding week, appearing in the most recent H.15, for United States Treasury securities adjusted to constant maturity with a maturity corresponding to the applicable Comparable Treasury Issue (if no maturity is within three months before or after the Final Maturity Date for the Notes (assuming, for this purpose, that the Notes mature on the Par Call Date), yields for the two published maturities most closely corresponding to such Comparable Treasury Issue shall be determined and the Treasury Rate shall be interpolated or extrapolated from such yields on a straight line basis, rounding to the nearest month) or (ii) if such release (or any successor release) is not published during the week preceding the calculation date or does not contain such yields, the rate per annum equal to the semi-annual equivalent yield to maturity of the applicable Comparable Treasury Issue, calculated using a price for such applicable Comparable Treasury Issue (expressed as a percentage of its principal amount) equal to the Comparable Treasury Price for such Redemption Date. The Treasury Rate shall be calculated on the third Business Day preceding such Redemption Date (or in the case of satisfaction and discharge, on the third business day preceding the deposit with the Trustee). As used in the immediately preceding sentence and in the definition of "Reference Treasury Dealer Quotation" above, the term "Business Day" means each Monday, Tuesday, Wednesday, Thursday and Friday which is not a day on which banking institutions in The City of New York are authorized or obligated by law, regulation or executive order to close. "H.15" means the daily statistical release designated as such, or any successor publication or program, published (including on its website) by the Board of Governors of the U.S. Federal Reserve System.

"Voting Stock" means, with respect to any "person" (as that term is used in Section 13(d)(3) of the Exchange Act) as of any date, the capital stock of such person that is at the time entitled to vote generally in the election of the board of directors (or persons performing similar functions) of such person.

If an Event of Default with respect to the Notes shall occur and be continuing, the principal of and accrued and unpaid interest on the Notes may be declared due and payable in the manner and with the effect provided in the Indenture.

The Indenture permits, with certain exceptions as therein provided, the amendment thereof and the modification of the rights and obligations of the Company and the rights of the Holders of Securities of each series issued under the Indenture at any time by the Company and the Trustee with the consent of the Holders of not less than a majority in aggregate principal amount of the Securities at the time Outstanding of each series affected thereby. The Indenture also contains provisions permitting the Holders of specified percentages in aggregate principal amount of the Securities of any series at the time Outstanding, on behalf of the Holders of all Securities of such series, to waive compliance by the Company with certain provisions of the Indenture and certain past defaults under the Indenture and their consequences. Any such consent or waiver by the Holder of this Note shall be conclusive and binding upon such Holder and upon all future Holders of this Note and of any Notes issued upon the registration of transfer hereof or in exchange herefor or in lieu hereof, whether or not notation of such consent or waiver is made upon this Note. The Indenture also permits the Company and the Trustee, without notice to or consent of the Holders of the Notes, to enter into one or more indentures supplemental thereto for the purposes specified in the Indenture.

No reference herein to the Indenture and no provision of this Note or of the Indenture shall alter or impair the obligation of the Company, which is absolute and unconditional, to pay the principal of and premium, if any, and interest on this Note at the time, place and rate, and in the coin or currency, herein and in the Indenture prescribed.

As provided in the Indenture and subject to certain limitations set forth therein, the transfer of this Note may be registered on the Security Register upon surrender of this Note for registration of transfer at the Office or Agency of the Company maintained for the purpose in any place where the principal of and interest on this Note are payable, duly endorsed, or accompanied by a written instrument of transfer in form satisfactory to the Company and the Security Registrar duly executed by the Holder hereof or by his attorney duly authorized in writing, and thereupon one or more new Notes, of authorized denominations and for the same aggregate principal amount, will be issued to the designated transferee or transferees.

The Notes are issuable only in registered form without coupons in denominations of \$2,000 and integral multiples of \$1,000 in excess thereof. As provided in the Indenture and subject to certain limitations set forth therein, the Notes are exchangeable for a like aggregate principal amount of Notes of authorized denominations as requested by the Holders, surrendering the same.

No service charge shall be made for any such registration of transfer or exchange, but the Company may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection therewith, other than in certain cases provided in the Indenture.

Prior to due presentment of this Note for registration of transfer, the Company, the Trustee and any agent of the Company or the Trustee may treat the Person in whose name this Note is registered as the owner hereof for all purposes, whether or not this Note shall be overdue, and neither the Company, the Trustee nor any such agent shall be affected by notice to the contrary.

The Indenture contains provisions whereby (i) the Company may be discharged from its obligations with respect to the Notes (subject to certain exceptions) or (ii) the Company may be released from its obligations under specified covenants and agreements in the Indenture, in each case if the Company irrevocably deposits with the Trustee money or Government Obligations sufficient to pay and discharge the entire indebtedness on all Notes, and satisfies certain other conditions, all as more fully provided in the Indenture. In addition, the Indenture shall cease to be of further effect (subject to certain exceptions) with respect to the Notes when (1) either (A) all Notes previously authenticated and delivered have been delivered (subject to certain exceptions) to the Trustee for cancellation, or (B) all Notes (i) have become due and payable, (ii) will become due and payable at their Stated Maturity within one year or (iii) are to be called for redemption within one year and, in the case of (i), (ii) or (iii) of this sentence, the Company has irrevocably deposited with the Trustee money in an amount sufficient to pay and discharge the entire indebtedness on all such Notes not theretofore delivered to the Trustee for cancellation, and (2) the Company satisfies certain other conditions, all as more fully provided in the Indenture. In the case of a satisfaction and discharge pursuant to clause (iii) of the preceding sentence prior to the Par Call Date, (x) the Redemption Price, as calculated using the Trusture, and the definition of "Treasury Rate") shall be sufficient for purposes of the deposit and (y) the Redemption Price shall be re-calculated using the Trustee, on or prior to the applicable Redemption Date, any deficit in the Redemption Price as so re-calculated, which shall be applied toward the redemption of the Notes. The Company shall deliver to the Trustee an Officer's Certificate setting forth the re-calculation of the Redemption Date.

This Note shall be governed by and construed in accordance with the laws of the State of New York.

All terms used in this Note which are defined in the Indenture and not defined herein shall have the meanings assigned to them in the Indenture.

Unless the certificate of authentication hereon has been executed by or on behalf of the Trustee under the Indenture by the manual signature of one of its authorized signatories, this Note shall not be entitled to any benefits under the Indenture or be valid or obligatory for any purpose.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, the Company has caused this instrument to be duly executed.

Packaging Corporation of America

By: /s/ Pamela A. Barnes

Name: Pamela A. Barnes Title: Senior Vice President — Finance and Controller

Dated: November 21, 2019

TRUSTEE'S CERTIFICATE OF AUTHENTICATION This is one of the Notes of the series designated therein referred to in the within-mentioned Indenture.

U.S. Bank National Association, as Trustee

By: /s/ Linda Garcia

Authorized Signatory

[Signature Page to 2029 Global Note]

ABBREVIATIONS

The following abbreviations, when used in the inscription on the face of this instrument, shall be construed as though they were written out in full according to applicable laws or regulations:

TEN COM — as tenants in common	UNIF GIFT MIN ACT –		Custodian	
TEN ENT — as tenants by the entireties		(Cust)		(Minor)
JT TEN — as joint tenants with right of survivorship and not as tenants in common		Under Uniform Gifts to Minors	Cifta ta Minana	
		Act	GIIIS to MINORS	
			(State)	
Additional abbrev	viations may also be used though not in the a	above list.		
FOR VALUE RECEIVED, the undersigned registered hold	der hereby sell(s), assign(s) and transfer(s) u	into		
PLEASE INSERT SOCIAL SECURITY OR OTHER IDE	NTIFYING NUMBER OF ASSIGNEE			
		4		
PLEASE PRINT OR	TYPEWRITE NAME AND ADDRESS OF	FASSIGNEE		
the within security and all rights thereunder, hereby irreve	ocably constituting and appointing			
			A	ttorney
to transfer said security on the books of the Company with	full power of substitution in the premises.			
Dated:	Signed:			

Notice: The signature to this assignment must correspond with the name as it appears upon the face of the within security in every particular, without alteration or enlargement or any change whatever.

OPTION TO ELECT REPAYMENT

(CHANGE OF CONTROL TRIGGERING EVENT)

The undersigned hereby irrevocably requests and instructs the Company to repay the within Note (or portion thereof specified below) pursuant to its terms at a price equal to the Repurchase Price, together with accrued and unpaid interest to, but not including, the Repurchase Date, to the undersigned at:

(Please print or typewrite name and address of the undersigned)

If less than the entire principal amount of the within Note is to be repaid, specify the portion thereof which the Holder elects to have repaid: ; and specify the denomination or denominations (which shall not be less than the minimum authorized denomination) of the Notes to be issued to the Holder for the portion of the within Note not being repaid (in the absence of any such specification, one such Note will be issued for the portion not being repaid):

Dated:

Name:

NOTICE: The signature on this Option to Elect Repayment must correspond with the name as written upon the face of the within instrument in every particular without alteration or enlargement.

THIS NOTE IS A GLOBAL SECURITY WITHIN THE MEANING OF THE INDENTURE HEREINAFTER REFERRED TO AND IS REGISTERED IN THE NAME OF A DEPOSITORY OR A NOMINEE THEREOF. THIS NOTE IS EXCHANGEABLE FOR NOTES REGISTERED IN THE NAME OF A PERSON OTHER THAN THE DEPOSITORY OR ITS NOMINEE ONLY IN THE LIMITED CIRCUMSTANCES DESCRIBED IN THE INDENTURE AND, UNLESS AND UNTIL IT IS EXCHANGED IN WHOLE OR IN PART FOR INDIVIDUAL NOTES REPRESENTED HEREBY, THIS GLOBAL NOTE MAY NOT BE TRANSFERRED EXCEPT AS A WHOLE BY THE DEPOSITORY TO A NOMINEE OF THE DEPOSITORY OR BY A NOMINEE OF THE DEPOSITORY TO THE DEPOSITORY OR ANOTHER NOMINEE OF THE DEPOSITORY OR BY THE DEPOSITORY OR ANY SUCH NOMINEE TO A SUCCESSOR DEPOSITORY OR A NOMINEE OF SUCH SUCCESSOR DEPOSITORY.

UNLESS THIS NOTE IS PRESENTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY, A NEW YORK CORPORATION ("DTC"), TO THE COMPANY (AS DEFINED BELOW) OR ITS AGENT FOR REGISTRATION OF TRANSFER, EXCHANGE OR PAYMENT, AND ANY NOTE ISSUED IS REGISTERED IN THE NAME OF CEDE & CO. OR IN SUCH OTHER NAME AS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC (AND ANY PAYMENT IS MADE TO CEDE & CO. OR TO SUCH OTHER ENTITY AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC), ANY TRANSFER, PLEDGE OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL INASMUCH AS THE REGISTERED OWNER HEREOF, CEDE & CO., HAS AN INTEREST HEREIN.

No.: 1

CUSIP No.: 695156 AV1 ISIN No.: US695156AV10 Principal Amount: \$400,000,000

PACKAGING CORPORATION OF AMERICA

4.050% SENIOR NOTES DUE 2049

Packaging Corporation of America, a corporation duly organized and existing under the General Corporation Law of the State of Delaware (hereinafter called the "Company," which term includes any successor under the Indenture referred to below), for value received, hereby promises to pay to Cede & Co., or registered assigns, the principal sum of FOUR HUNDRED MILLION DOLLARS (\$400,000,000) on December 15, 2049, and to pay interest thereon from and including November 21, 2019, or from and including the most recent date to which interest has been paid or duly provided for, to, but not including, the applicable Interest Payment Date (as defined below) or Maturity, as the case may be. The Company will pay interest semi-annually in arrears on June 15 and December 15 of each year (each, an "Interest Payment Date"), beginning on June 15, 2020, and at Maturity, at the rate of 4.050% per annum, until the principal hereof is paid or duly made available for payment. Interest on this Note shall be calculated on the basis of a 360-day year consisting of twelve 30-day months. The interest so payable and punctually paid or duly provided for on any Interest Payment Date will, as provided in such Indenture, be paid to the Person in whose name this Note (or one or more Predecessor Securities)

is registered at the close of business on June 1 or December 1, as applicable, (whether or not a Business Day) prior to such Interest Payment Date. Any such interest which is payable, but is not punctually paid or duly provided for, on any Interest Payment Date shall forthwith cease to be payable to the Person who was the Holder hereof on the relevant Regular Record Date by virtue of having been such Holder, and may be paid to the Person in whose name this Note (or one or more Predecessor Securities) is registered at the close of business on a Special Record Date for the payment of such Defaulted Interest to be fixed by the Trustee, notice whereof shall be given to the Holder of this Note not less than 10 days prior to such Special Record Date, or may be paid at any time in any other lawful manner not inconsistent with the requirements of any securities exchange on which the Notes may be listed, and upon such notice as may be required by such exchange, all as more fully provided in such Indenture.

Payment of the principal of and premium, if any, and the interest on this Note will be made at the office or agency of the Company maintained for that purpose in the Borough of Manhattan, The City of New York, in such coin or currency of the United States of America as at the time of payment is legal tender for payment of public and private debts; provided, however, that, at the option of the Company, interest may be paid by check mailed to the address of the Person entitled thereto as such address shall appear in the Security Register or by transfer to an account maintained by the payee with a bank located in the United States; and provided, further, that payments on global notes will be made to DTC, or its nominee.

This Note is one of a duly authorized issue of Securities of the Company (herein called the "Notes") issued and to be issued in one or more series under an Indenture, dated as of July 21, 2003 (the "Indenture"), between the Company and U.S. Bank National Association, as trustee (herein called the "Trustee," which term includes any successor trustee under the Indenture), to which Indenture and all indentures supplemental thereto reference is hereby made for a statement of the respective rights, limitations of rights, duties and immunities thereunder of the Company, the Trustee and the Holders of the Notes, and the terms upon which the Notes are, and are to be, authenticated and delivered. This Note is one of the series designated on the face hereof, initially limited (subject to exceptions provided in the Indenture) in aggregate principal amount to \$400,000,000, subject to the right of the Company, without the consent of the Holders of the Notes, to "reopen" such series and to issue additional Notes of such series on the terms and subject to the conditions provided in or pursuant to the Indenture.

At any time prior to the Par Call Date, the Notes may be redeemed by the Company, in whole or from time to time in part, at the option of the Company at a Redemption Price equal to the greater of (i) 100% of the principal amount of the Notes to be redeemed and (ii) the sum of the present values of the remaining scheduled payments of principal and interest on the Notes to be redeemed that would be due on the final maturity date of the Notes (assuming that the Notes matured on the Par Call Date) (exclusive of interest accrued to the applicable Redemption Date) discounted to such Redemption Date on a semi-annual basis (assuming a 360-day year consisting of twelve 30-day months) at the Treasury Rate plus 30 basis points, plus, in the case of both clause (i) and clause (ii) above, accrued and unpaid interest on the principal amount of the Notes being redeemed to, but not including, such Redemption Date; provided, however, that installments of interest whose Stated Maturity is on or prior to the Redemption Date will be payable to the Holders of the Notes (or one or more Predecessor Notes) registered as such at the close of business on the relevant Regular Record Dates according to their terms and the

provisions of the Indenture. In addition, at any time on or after the Par Call Date, the Notes may be redeemed by the Company, in whole or in part, at the option of the Company at a Redemption Price equal to 100% of the principal amount of the Notes to be redeemed, plus accrued and unpaid interest thereon to, but not including, the Redemption Date; provided, however, that installments of interest whose Stated Maturity is on or prior to the Redemption Date will be payable to the Holders of the Notes (or one or more Predecessor Notes) registered as such at the close of business on the relevant Regular Record Dates according to their terms and the provisions of the Indenture. Any such redemption shall be effected in accordance with the terms and conditions set forth in the Indenture.

Notice of any redemption will be mailed at least 15 days but not more than 45 days before the applicable Redemption Date to each Holder of the Notes to be redeemed at such Holder's registered address. Notices of redemption may be conditioned upon the consummation of a financing transaction or asset disposition (or a series of financing transactions or asset dispositions) in which part or all of the proceeds of such transaction will be used to redeem the Notes. In addition, if such redemption is subject to satisfaction of any such condition, the notice of redemption may state that, in the Company's discretion, the redemption date may be delayed until such time as such condition shall be satisfied, or such redemption may not occur and such notice may be rescinded in the event that such condition shall not have been satisfied by the redemption date, or the redemption date so delayed. If less than all the Notes are to be redeemed at the Company's option, the Trustee will select, in such manner as it deems fair and appropriate, the Notes (or portions thereof) to be redeemed. Unless the Company defaults in payment of the Redemption Price, on and after the applicable Redemption Date interest will cease to accrue on the Notes or portions thereof called for redemption on such Redemption Date.

If a Change of Control Triggering Event occurs, unless the Company has previously exercised its right to redeem the Notes as described above, the Company will make an offer to each Holder of Notes to repurchase all or any part (equal to \$2,000) or integral multiples of \$1,000 in excess thereof) of that Holder's Notes at a Repurchase Price in cash equal to 101% of the aggregate principal amount of Notes repurchased plus any accrued and unpaid interest on the Notes repurchased to, but not including, the applicable Repurchase Date. Within 30 days following any Change of Control Triggering Event or, at the option of the Company, prior to any Change of Control, but after the public announcement of an impending Change of Control, the Company will mail a notice to each Holder, with a copy to the Trustee, describing the transaction or transactions that constitute or may constitute the Change of Control Triggering Event and offering to repurchase the Notes on the Change of Control Triggering Event Repurchase Date specified in the notice, which date will be no earlier than 30 days and no later than 60 days from the date such notice is mailed. The notice shall, if mailed prior to the date of consummation of the Change of Control, state that the oiler to repurchase is conditioned on the Change of Control being consummated on or prior to the Repurchase Date specified in such notice.

The Company will comply with the requirements of Rule 14e-1 under the Securities Exchange Act of 1934 (the "Exchange Act") and any other securities laws and regulations thereunder, to the extent those laws and regulations are applicable in connection with the repurchase of the Notes as a result of a Change of Control Triggering Event. To the extent that the provisions of any securities laws or regulations conflict with the Change of Control Triggering Event provisions of the Notes, the Company will comply with the applicable securities laws and regulations and will not be deemed to have breached its obligations under the Change of Control Triggering Event provisions of the Notes by virtue of such conflict.

On the Change of Control Triggering Event Repurchase Date, the Company will, to the extent lawful: (a) accept for payment all Notes or portions of Notes (in minimum denominations of \$2,000 and integral multiples of \$1,000 in excess thereof) properly tendered pursuant to the Company's offer; (b) deposit with the Paying Agent an amount equal to the aggregate Repurchase Price in respect of all Notes or portions of Notes properly tendered; and (c) deliver or cause to be delivered to the Trustee the Notes properly accepted, together with an Officers' Certificate stating the aggregate principal amount of Notes being repurchased by the Company.

The Paying Agent will promptly mail or otherwise deliver to each Holder of Notes properly tendered the Repurchase Price for the Notes, and the Trustee will promptly authenticate and mail (or cause to be transferred by book-entry) to each Holder a new Note equal in principal amount to any unpurchased portion of any Notes surrendered; provided, that each new Note will be in a principal amount of \$2,000 or an integral multiple of \$1,000 in excess thereof.

The Company will not be required to make an offer to repurchase the Notes upon a Change of Control Triggering Event if a third party makes such an offer in the manner, at the times and otherwise in compliance with the requirements for an offer made by the Company and such third party purchases all Notes properly tendered and not withdrawn under its offer. An offer to repurchase the Notes upon a Change of Control Triggering Event may be made in advance of a Change of Control Triggering Event, if a definitive agreement is in place for a Change of Control at the time of the making of such an offer.

As used in this Note, the following terms have the meaning set forth below:

"Below Investment Grade Rating Event" occurs if the Notes cease to be rated Investment Grade by each of the Rating Agencies on any date from the earlier of (1) the occurrence of a Change of Control or (2) public notice of the Company's intention to effect a Change of Control, in each case until the end of the 60-day period following the earlier of (i) the occurrence of a Change of Control or (ii) public notice of the Company's intention to effect a Change of Control; provided, however, that if during such 60-day period one or more Rating Agencies has publicly announced that it is considering a possible downgrade of the Notes, then such 60-day period shall be extended for such time as the rating of the Notes by any Rating Agency remains under publicly announced consideration for possible downgrade. Notwithstanding the foregoing, a Below Investment Grade Rating Event otherwise arising by virtue of a particular reduction in rating shall not be deemed to have occurred in respect of a particular Change of Control (and thus shall not be deemed a Below Investment Grade Rating Event for purposes of the definition of Change of Control Triggering Event) if each Rating Agency making the reduction in rating to which this definition would otherwise apply does not announce or publicly confirm or inform the Trustee in writing at the Company's or the Trustee's request that the reduction was the result, in whole or in part, of any event or circumstance comprised of or arising as a result of, or in respect of, the applicable Change of Control (whether or not the applicable Change of Control shall have occurred at the time of the Below Investment Grade Rating Event).

"Change of Control" means the occurrence of any of the following:

- (1) the direct or indirect sale, lease, transfer, conveyance or other disposition (other than by way of merger or consolidation), in one or a series of related transactions, of all or substantially all of the properties or assets of the Company and its Subsidiaries taken as a whole to any "person" (as that term is used in Section 13(d)(3) of the Exchange Act) other than the Company or one of its Subsidiaries;
- (2) the adoption of a plan relating to the liquidation or dissolution of the Company;
- (3) the first day on which the majority of the members of the board of directors of the Company are not Continuing Directors;
- (4) the consummation of any transaction or series of related transactions (including, without limitation, any merger or consolidation) the result of which is that any "person" (as that term is used in Section 13(d)(3) of the Exchange Act) becomes the "beneficial owner" (as defined in Rules 13d-3 and 13d-5 under the Exchange Act), directly or indirectly, of more than 50% of the then outstanding shares of the Voting Stock of the Company, measured by voting power rather than number of shares; or
- (5) the Company consolidates with, or merges with or into, any "person" (as that term is used in Section 13(d)(3) of the Exchange Act), or any person consolidates with, or merges with or into, the Company, in any such event pursuant to a transaction in which any of the outstanding Voting Stock of the Company or any of the outstanding Voting Stock of such other person is converted into or exchanged for cash, securities or other property, other than any such transaction where the shares of the Voting Stock of the Company outstanding immediately prior to such transaction constitute, or are converted into or exchanged for, a majority of the Voting Stock of the surviving person immediately after giving effect to such transaction.

Notwithstanding the foregoing, a transaction or series of related transactions effected to create a holding company for the Company will not be deemed to involve a Change of Control under clause (4) above if (1) pursuant to such transaction or series of related transactions, the Company becomes a direct or indirect wholly owned subsidiary of such holding company and (2)(A) the direct or indirect holders of the Voting Stock of such holding company immediately following that transaction are substantially the same as the holders of the Voting Stock of the Company immediately prior to that transaction or (B) immediately following that transaction no "person" (as that term is used in Section 13(d)(3) of the Exchange Act) (other than a holding company satisfying the requirements of this sentence) is the "beneficial owner" (as defined in Rules 13d-3 and 13d-5 under the Exchange Act), directly or indirectly, of a majority of the Voting Stock of such holding company, measured by voting power rather than number of shares.

"Change of Control Triggering Event" means the occurrence of both a Change of Control and a Below Investment Grade Rating Event.

"Comparable Treasury Issue" means, with respect to any Redemption Date for the Notes, the United States Treasury security selected by the Independent Investment Banker as having a maturity comparable to the remaining term of the Notes (assuming, for this purpose, that the Notes mature on the Par Call Date) to be redeemed that would be utilized, at the time of selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the remaining term of the Notes.

"Comparable Treasury Price" means, with respect to any Redemption Date for the Notes, (i) the average of five Reference Treasury Dealer Quotations for such Redemption Date, after excluding the highest and lowest such Reference Treasury Dealer Quotations, (ii) if the Independent Investment Banker obtains fewer than five but more than one such Reference Treasury Dealer Quotations for such Redemption Date, the average of all such quotations or (iii) if the Independent Investment Banker obtains only one such Reference Treasury Dealer Quotation for such Redemption Date, that Reference Treasury Dealer Quotation.

"Continuing Directors" means, as of any date of determination, any member of the Company's board of directors who (1) was a member of such board of directors on the date of the issuance of the Notes; or (2) was nominated for election or elected to such board of directors with the approval of a majority of the Continuing Directors who were members of such board of directors at the time of such nomination or election (either by a specific vote or by approval of the Company's proxy statement in which such member was named as a nominee for election as a director).

"Independent Investment Banker" means, with respect to any Redemption Date for the Notes, either Deutsche Bank Securities Inc. or Wells Fargo Securities, LLC or their respective successors, whichever is selected by the Company, or, if all such firms or the respective successors, if any, to such firms, as the case may be, are unwilling or unable to select the Comparable Treasury Issue, an independent investment banking institution of national standing in the United States of America appointed by the Company.

"Investment Grade" means a rating of Baa3 or better by Moody's (or its equivalent under any successor rating categories of Moody's) and a rating of BBB- or better by S&P (or its equivalent under any successor rating categories of S&P) or the equivalent investment grade credit rating, from any additional Rating Agency or Rating Agencies.

"Moody's" means Moody's Investors Service, Inc. and its successors.

"Par Call Date" means June 15, 2049.

"Rating Agency" means (1) each of Moody's and S&P; and (2) if either Moody's or S&P ceases to rate the Notes or fails to make a rating of the Notes publicly available for reasons outside of the Company's control, a "nationally recognized statistical rating organization," within the meaning of Section 3(a)(62) of the Exchange Act, selected by the Company as a replacement agency for Moody's or S&P, or both, as the case may be.

"Reference Treasury Dealer" means, with respect to any Redemption Date for the Notes, each of (i) Deutsche Bank Securities Inc. and Wells Fargo Securities, LLC and their respective successors (provided, however, that if any such firm or any such successor, as the case may be, ceases to be a primary U.S. Government securities dealer in New York City (a "Primary Treasury Dealer"), the Company shall substitute therefor another Primary Treasury Dealer); and (ii) two other Primary Treasury Dealers selected by the Company.

"Reference Treasury Dealer Quotation" means, with respect to each Reference Treasury Dealer and any Redemption Date for the Notes, the average, as determined by the Independent Investment Banker, of the bid and asked prices for the Comparable Treasury Issue (expressed in each case as a percentage of its principal amount) quoted in writing to the Independent Investment Banker by such Reference Treasury Dealer at 5:00 p.m., New York City time, on the third Business Day preceding such Redemption Date.

"Repurchase Date," with respect to any Note or portion thereof to be repurchased, means the date fixed for such repurchase by or pursuant to the Indenture or such Note.

"Repurchase Price," with respect to any Note or portion thereof to be repurchased, means the price at which it is to be repurchased as determined by or pursuant to the Indenture or such Note.

"S&P" means Standard & Poor's Ratings Services, a division of The McGraw-Hill Companies, Inc., and its successors.

"Treasury Rate" means, with respect to any Redemption Date for the Notes, (i) the yield, under the heading that represents the average for the immediately preceding week, appearing in the most recent H.15, for United States Treasury securities adjusted to constant maturity with a maturity corresponding to the applicable Comparable Treasury Issue (if no maturity is within three months before or after the Final Maturity Date for the Notes (assuming, for this purpose, that the Notes mature on the Par Call Date), yields for the two published maturities most closely corresponding to such Comparable Treasury Issue shall be determined and the Treasury Rate shall be interpolated or extrapolated from such yields on a straight line basis, rounding to the nearest month) or (ii) if such release (or any successor release) is not published during the week preceding the calculation date or does not contain such yields, the rate per annum equal to the semi-annual equivalent yield to maturity of the applicable Comparable Treasury Issue, calculated using a price for such applicable Comparable Treasury Issue (expressed as a percentage of its principal amount) equal to the Comparable Treasury Price for such Redemption Date. The Treasury Rate shall be calculated on the third Business Day preceding such Redemption Date (or in the case of satisfaction and discharge, on the third business day preceding the deposit with the Trustee). As used in the immediately preceding sentence and in the definition of "Reference Treasury Dealer Quotation" above, the term "Business Day" means each Monday, Tuesday, Wednesday, Thursday and Friday which is not a day on which banking institutions in The City of New York are authorized or obligated by law, regulation or executive order to close. "H.15" means the daily statistical release designated as such, or any successor publication or program, published (including on its website) by the Board of Governors of the U.S. Federal Reserve System.

"Voting Stock" means, with respect to any "person" (as that term is used in Section 13(d)(3) of the Exchange Act) as of any date, the capital stock of such person that is at the time entitled to vote generally in the election of the board of directors (or persons performing similar functions) of such person.

If an Event of Default with respect to the Notes shall occur and be continuing, the principal of and accrued and unpaid interest on the Notes may be declared due and payable in the manner and with the effect provided in the Indenture.

The Indenture permits, with certain exceptions as therein provided, the amendment thereof and the modification of the rights and obligations of the Company and the rights of the Holders of Securities of each series issued under the Indenture at any time by the Company and the Trustee with the consent of the Holders of not less than a majority in aggregate principal amount of the Securities at the time Outstanding of each series affected thereby. The Indenture also contains provisions permitting the Holders of specified percentages in aggregate principal amount of the Securities of any series at the time Outstanding, on behalf of the Holders of all Securities of such series, to waive compliance by the Company with certain provisions of the Indenture and certain past defaults under the Indenture and their consequences. Any such consent or waiver by the Holder of this Note shall be conclusive and binding upon such Holder and upon all future Holders of this Note and of any Notes issued upon the registration of transfer hereof or in exchange herefor or in lieu hereof, whether or not notation of such consent or waiver is made upon this Note. The Indenture also permits the Company and the Trustee, without notice to or consent of the Holders of the Notes, to enter into one or more indentures supplemental thereto for the purposes specified in the Indenture.

No reference herein to the Indenture and no provision of this Note or of the Indenture shall alter or impair the obligation of the Company, which is absolute and unconditional, to pay the principal of and premium, if any, and interest on this Note at the time, place and rate, and in the coin or currency, herein and in the Indenture prescribed.

As provided in the Indenture and subject to certain limitations set forth therein, the transfer of this Note may be registered on the Security Register upon surrender of this Note for registration of transfer at the Office or Agency of the Company maintained for the purpose in any place where the principal of and interest on this Note are payable, duly endorsed, or accompanied by a written instrument of transfer in form satisfactory to the Company and the Security Registrar duly executed by the Holder hereof or by his attorney duly authorized in writing, and thereupon one or more new Notes, of authorized denominations and for the same aggregate principal amount, will be issued to the designated transferee or transferees.

The Notes are issuable only in registered form without coupons in denominations of \$2,000 and integral multiples of \$1,000 in excess thereof. As provided in the Indenture and subject to certain limitations set forth therein, the Notes are exchangeable for a like aggregate principal amount of Notes of authorized denominations as requested by the Holders, surrendering the same.

No service charge shall be made for any such registration of transfer or exchange, but the Company may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection therewith, other than in certain cases provided in the Indenture.

Prior to due presentment of this Note for registration of transfer, the Company, the Trustee and any agent of the Company or the Trustee may treat the Person in whose name this Note is registered as the owner hereof for all purposes, whether or not this Note shall be overdue, and neither the Company, the Trustee nor any such agent shall be affected by notice to the contrary.

The Indenture contains provisions whereby (i) the Company may be discharged from its obligations with respect to the Notes (subject to certain exceptions) or (ii) the Company may be released from its obligations under specified covenants and agreements in the Indenture, in each case if the Company irrevocably deposits with the Trustee money or Government Obligations sufficient to pay and discharge the entire indebtedness on all Notes, and satisfies certain other conditions, all as more fully provided in the Indenture. In addition, the Indenture shall cease to be of further effect (subject to certain exceptions) with respect to the Notes when (1) either (A) all Notes previously authenticated and delivered have been delivered (subject to certain exceptions) to the Trustee for cancellation, or (B) all Notes (i) have become due and payable, (ii) will become due and payable at their Stated Maturity within one year or (iii) are to be called for redemption within one year and, in the case of (i), (ii) or (iii) of this sentence, the Company has irrevocably deposited with the Trustee money in an amount sufficient to pay and discharge the entire indebtedness on all such Notes not theretofore delivered to the Trustee for cancellation, and (2) the Company satisfies certain other conditions, all as more fully provided in the Indenture. In the case of a satisfaction and discharge pursuant to clause (iii) of the preceding sentence prior to the Par Call Date, (x) the Redemption Price, as calculated using the Trusture, and the definition of "Treasury Rate") shall be sufficient for purposes of the deposit and (y) the Redemption Price shall be re-calculated using the Trustee, on or prior to the applicable Redemption Date, any deficit in the Redemption Price as so re-calculated, which shall be applied toward the redemption of the Notes. The Company shall deliver to the Trustee an Officer's Certificate setting forth the re-calculation of the Redemption Date.

This Note shall be governed by and construed in accordance with the laws of the State of New York.

All terms used in this Note which are defined in the Indenture and not defined herein shall have the meanings assigned to them in the Indenture.

Unless the certificate of authentication hereon has been executed by or on behalf of the Trustee under the Indenture by the manual signature of one of its authorized signatories, this Note shall not be entitled to any benefits under the Indenture or be valid or obligatory for any purpose.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, the Company has caused this instrument to be duly executed.

Packaging Corporation of America

By: /s/ Pamela A. Barnes

Name: Pamela A. Barnes Title: Senior Vice President —Finance and Controller

Dated: November 21, 2019

TRUSTEE'S CERTIFICATE OF AUTHENTICATION This is one of the Notes of the series designated therein referred to in the within-mentioned Indenture.

U.S. Bank National Association, as Trustee

By: /s/ Linda Garcia

Authorized Signatory

[Signature Page to 2049 Global Note]

ABBREVIATIONS

The following abbreviations, when used in the inscription on the face of this instrument, shall be construed as though they were written out in full according to applicable laws or regulations:

TEN COM — as tenants in common	UNIF GIFT MIN ACT –	Custodian	
TEN ENT — as tenants by the entireties	(Cust)	(Minor))
JT TEN — as joint tenants with right of survivorship			
and not as tenants in common	Under Uniform Gifts to Minors Act		
		(State)	

Additional abbreviations may also be used though not in the above list.

FOR VALUE RECEIVED, the undersigned registered holder hereby sell(s), assign(s) and transfer(s) unto

PLEASE INSERT SOCIAL SECURITY OR OTHER IDENTIFYING NUMBER OF ASSIGNEE

PLEASE PRINT OR TYPEWRITE NAME AND ADDRESS OF ASSIGNEE

Attorney

the within security and all rights thereunder, hereby irrevocably constituting and appointing

to transfer said security on the books of the Company with full power of substitution in the premises.

Dated:

Notice: The signature to this assignment must correspond with the name as it appears upon the face of the within security in every particular, without alteration or enlargement or any change whatever.

Signed:

OPTION TO ELECT REPAYMENT

(CHANGE OF CONTROL TRIGGERING EVENT)

The undersigned hereby irrevocably requests and instructs the Company to repay the within Note (or portion thereof specified below) pursuant to its terms at a price equal to the Repurchase Price, together with accrued and unpaid interest to, but not including, the Repurchase Date, to the undersigned at:

(Please print or typewrite name and address of the undersigned)

If less than the entire principal amount of the within Note is to be repaid, specify the portion thereof which the Holder elects to have repaid: ; and specify the denomination or denominations (which shall not be less than the minimum authorized denomination) of the Notes to be issued to the Holder for the portion of the within Note not being repaid (in the absence of any such specification, one such Note will be issued for the portion not being repaid):

Dated:

Name:

NOTICE: The signature on this Option to Elect Repayment must correspond with the name as written upon the face of the within instrument in every particular without alteration or enlargement.

Exhibit 5.1

MAYER BROWN

Mayer Brown LLP 71 South Wacker Drive Chicago, IL 60606 United States of America

> T: +1 312 782 0600 F: +1 312 701 7711 mayerbrown.com

November 21, 2019

Packaging Corporation of America 1 North Field Court Lake Forest, Illinois 60045

Re: Registration Statement on Form S-3

Ladies and Gentlemen:

We have acted as special counsel to Packaging Corporation of America, a Delaware corporation (the "Company"), in connection with the preparation and filing of a registration statement on Form S-3 (Registration No. 333-221917), including the prospectus constituting a part thereof, dated December 6, 2017, and the final supplement to the prospectus, dated November 18, 2019 (collectively, the "Prospectus"), filed by the Company with the Securities and Exchange Commission (the "Commission") pursuant to the Rule 415 of the Securities Act of 1933, as amended (the "Securities Act"), relating to the issuance and sale by the Company of \$500,000,000 aggregate principal amount of 3.000% Senior Notes due 2029 (the "2029 Notes") and \$400,000,000 aggregate principal amount of 4.050% Senior Notes due 2049 (the "2049 Notes," and together with the 2029 Notes, the "Securities"). The Securities will be issued pursuant to an Indenture, dated as of July 21, 2003, between the Company and U.S. Bank National Association, as trustee, as supplemented by an officers' certificate (collectively, the "Indenture").

In rendering the opinions expressed herein, we have examined and relied upon such documents, corporate records, certificates of public officials and certificates as to factual matters executed by officers of the Company as we have deemed necessary or appropriate. We have assumed the authenticity, accuracy and completeness of all documents, records and certificates submitted to us as originals, the conformity to the originals of all documents, records and certificates submitted to us as copies and the authenticity, accuracy and completeness of the originals of all documents, records and certificates submitted to us as copies. We have assumed the legal capacity and genuineness of the signatures of persons signing all documents in connection with which the opinions expressed herein are rendered.

Based upon and subject to the foregoing and the qualifications expressed below, we are of the opinion that the Securities, when duly executed and delivered and authenticated in accordance with the Indenture and when payment therefor is received, will have been duly issued and will constitute valid and binding obligations of the Company, enforceable against the

Packaging Corporation of America November 21, 2019 Page 2

Company in accordance with their terms, except as (a) enforcement thereof may be limited by bankruptcy, insolvency (including, without limitation, all laws relating to fraudulent transfers), reorganization, moratorium or similar laws affecting enforcement of creditors' rights generally and except as enforcement thereof is subject to general principles of equity (regardless of whether enforcement is considered in a proceeding in equity or at law) and (b) the enforcement of provisions imposing liquidated damages, penalties or an increase in the interest rate upon the occurrence of certain events may be limited in certain circumstances.

We hereby consent to the filing of this opinion as an exhibit to a Current Report on Form 8-K as Exhibit 5.1 thereto and to being named in the Prospectus under the caption "Legal Matters" with respect to the matters stated therein. In giving this consent, we do not thereby admit that we are experts within the meaning of Section 11 of the Securities Act or within the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission.

We express no opinion as to matters under or involving any laws other than the laws of the State of Illinois, the laws of the State of New York, the General Corporation Law of the State of Delaware and the federal laws of the United States of America.

This opinion is limited to the specific issues addressed herein, and no opinion may be inferred or implied beyond that expressly stated herein. We assume no obligation to revise or supplement this opinion should the present laws of the United States be changed by legislative action, judicial decision or otherwise.

This opinion is furnished in connection with the filing of a Current Report on Form 8-K and is not to be used, circulated, quoted or otherwise relied upon for any other purpose.

Very truly yours,

/s/ Mayer Brown LLP

MAYER BROWN LLP