

APPLIED MATERIALS INC /DE

Form S-3ASR

June 12, 2018

Table of Contents

As filed with the Securities and Exchange Commission on June 12, 2018

Registration No. 333-

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-3

REGISTRATION STATEMENT

Under

the Securities Act of 1933

Applied Materials, Inc.

(Exact name of Registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

94-1655526

(I.R.S. Employer Identification Number)

3050 Bowers Avenue, P.O. Box 58039

Santa Clara, California 95052-8039

(408) 727-5555

(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)

Thomas F. Larkins, Esq.

Senior Vice President, General Counsel

Applied Materials, Inc.

3050 Bowers Avenue, P.O. Box 58039

Santa Clara, California 95052-8039

(408) 727-5555

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Sandra L. Flow, Esq.

Cleary Gottlieb Steen & Hamilton LLP

One Liberty Plaza

New York, NY 10006

(212) 225-2000

Approximate date of commencement of proposed sale to the public:

Edgar Filing: APPLIED MATERIALS INC /DE - Form S-3ASR

From time to time, after the effective date of this Registration Statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of large accelerated filer, accelerated filer, smaller reporting company and emerging growth company in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer

Non-accelerated filer (do not check if smaller reporting company)

Accelerated filer

Smaller reporting company

Emerging growth company

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 7(a)(2)(B) of Securities Act.

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Amount to be Registered(1)	Proposed Maximum Aggregate	Proposed Maximum Aggregate	Amount of Registration Fee(1)
--	----------------------------	----------------------------	----------------------------	-------------------------------

Offering Price Offering Price(1)

Per Unit(1)

Debt Securities

- (1) An indeterminate amount of the securities is being registered as may from time to time be offered hereunder at indeterminate prices. In accordance with Rules 456(b) and 457(r) under the Securities Act of 1933, as amended (the Securities Act), the registrant is deferring payment of all registration fees and will pay the registration fees subsequently in advance or on a pay-as-you-go basis.

Table of Contents

Prospectus

Applied Materials, Inc.

Debt Securities

We may issue securities from time to time in one or more offerings. This prospectus describes the general terms of these securities and the general manner in which these securities will be offered. We will provide the specific terms of these securities in supplements to this prospectus. The prospectus supplements will also describe the specific manner in which these securities will be offered and may also supplement, update or amend information contained in this document. You should read this prospectus and any applicable prospectus supplement before you invest.

We may offer these securities in amounts, at prices and on terms determined at the time of offering. The securities may be sold directly to you, through agents, or through underwriters and dealers. If agents, underwriters or dealers are used to sell the securities, we will name them and describe their compensation in a prospectus supplement.

Investing in these securities involves certain risks. See Risk Factors included in or incorporated by reference into any accompanying prospectus supplement and in the documents incorporated by reference in this prospectus for a discussion of the factors you should carefully consider before deciding to purchase these securities.

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

The date of this prospectus is June 12, 2018

Table of Contents

TABLE OF CONTENTS

<u>About this Prospectus</u>	Page 1
<u>Where You Can Find More Information</u>	1
<u>Incorporation by Reference</u>	2
<u>Forward-Looking Statements</u>	3
<u>Our Business</u>	4
<u>Ratio of Earnings to Fixed Charges</u>	5
<u>Use of Proceeds</u>	6
<u>Description of Debt Securities</u>	7
<u>Certain U.S. Federal Income Tax Considerations</u>	22
<u>Plan of Distribution</u>	30
<u>Legal Matters</u>	33
<u>Experts</u>	33

We are responsible for the information contained and incorporated by reference in this prospectus, any prospectus supplement and any free writing prospectus prepared by us or on our behalf. We have not authorized anyone to give you any other information, and we take no responsibility for any other information that others may give you. We are not making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should not assume that the information contained or incorporated by reference in this prospectus or any prospectus supplement is accurate as of any date other than the date of the document containing the information.

Table of Contents

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, which we refer to as the SEC, utilizing a shelf registration process. Under this shelf registration process, we may from time to time sell the securities described in this prospectus in one or more offerings.

This prospectus provides you with a general description of the securities we may offer. Each time we sell securities, we will provide one or more prospectus supplements that will contain specific information about the terms of the offering. The prospectus supplement may also add, update or change information, including information about us, contained in this prospectus. Any statement that we make in this prospectus will be modified or superseded by any inconsistent statement made by us in a prospectus supplement. Therefore, before making your investment decision, you should carefully read both this prospectus and any accompanying prospectus supplement together with the additional information described under the headings **Where You Can Find More Information** and **Incorporation by Reference**.

Unless the context otherwise indicates, references in this prospectus to **Applied**, **we**, **our** and **us** refer, collectively, to **Applied Materials, Inc.**, a Delaware corporation, and its consolidated subsidiaries.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC's website at <http://www.sec.gov>. Copies of certain information filed by us with the SEC are also available on our website at www.appliedmaterials.com. Information accessible on or through our website is not a part of this prospectus. You may also read and copy any document we file at the SEC's public reference room, 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the public reference room.

This prospectus is part of a registration statement we filed with the SEC. This prospectus omits some information contained in the registration statement in accordance with SEC rules and regulations. You should review the information and exhibits in the registration statement for further information on us and our consolidated subsidiaries and the securities we are offering. Statements in this prospectus concerning any document we filed as an exhibit to the registration statement or that we otherwise filed with the SEC are not intended to be comprehensive and are qualified by reference to these filings. You should review the complete document to evaluate these statements.

Table of Contents

INCORPORATION BY REFERENCE

The SEC allows us to incorporate by reference much of the information we file with the SEC, which means that we can disclose important information to you by referring you to those publicly available documents. The information that we incorporate by reference in this prospectus is considered to be part of this prospectus. Because we are incorporating by reference future filings with the SEC, this prospectus is continually updated and those future filings may modify or supersede some of the information included or incorporated by reference in this prospectus. This means that you must look at all of the SEC filings that we incorporate by reference to determine if any of the statements in this prospectus or in any document previously incorporated by reference have been modified or superseded. This prospectus incorporates by reference the documents listed below (File No. 000-06920) and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, until the offering of the securities under the registration statement is terminated or completed, except that we are not incorporating any information included in a Current Report on Form 8-K that has been or will be furnished (and not filed) with the SEC, unless the information is expressly incorporated herein:

Annual Report on Form 10-K for the fiscal year ended October 29, 2017, including the information specifically incorporated by reference into the Form 10-K from our definitive proxy statement for the 2018 Annual Meeting of Stockholders;

Quarterly Reports on Form 10-Q for the fiscal quarters ended January 28, 2018 and April 29, 2018; and

Current Reports on Form 8-K filed on January 23, 2018 and March 9, 2018.

Copies of these filings are available to you without charge upon your written or oral request. You can obtain the documents incorporated by reference in this document through the SEC website at www.sec.gov, by going to our Investor Relations page on our corporate web site at www.appliedmaterials.com, or by requesting them from us at the following address: Applied Materials, Inc., 3050 Bowers Avenue, P.O. Box 58039, Santa Clara, CA 95052-8039, Attn: Investor Relations, or by telephone at 1-408-748-5227. Information contained in or accessible through our website is not part of or incorporated by reference into this prospectus.

Table of Contents

FORWARD-LOOKING STATEMENTS

This prospectus and the information incorporated by reference in this prospectus include forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Exchange Act. Forward-looking statements may contain words such as expect, believe, may, can, should, would, will, forecast, expect, anticipate, estimate, predict, potential, continue, plan, the negative of, or other similar expressions. These statements and their underlying assumptions are subject to risks and uncertainties that could cause actual results to differ materially from those expressed or implied by such statements. These forward-looking statements speak only as of the date of this prospectus, and we assume no obligation to update them.

Important factors that could cause our results to differ materially from those indicated by these forward-looking statements are included in our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, any other documents incorporated by reference in this prospectus and in any related prospectus supplement. These and many other factors could affect Applied's future financial condition and operating results and could cause actual results to differ materially from expectations based on forward-looking statements made in this document or elsewhere by Applied or on its behalf.

Table of Contents

OUR BUSINESS

Applied provides manufacturing equipment, services and software to the semiconductor, display, and related industries. Applied's customers include manufacturers of semiconductor wafers and chips, liquid crystal and organic light emitting diode (OLED) displays, and other electronic devices. These customers may use what they manufacture in their own end products or sell the items to other companies for use in advanced electronic components.

Incorporated in 1967, Applied is a Delaware corporation. Our principal executive offices are located at 3050 Bowers Avenue, P.O. Box 58039, Santa Clara, California 95052-8039 and our telephone number is (408) 727-5555. We maintain a website at www.appliedmaterials.com. Information contained in or accessible through our website is not part of or incorporated by reference into this prospectus.

Table of Contents**RATIO OF EARNINGS TO FIXED CHARGES**

The following table sets forth our ratio of earnings to fixed charges for each of the periods indicated. You should read this table in conjunction with our consolidated financial statements and notes in our Annual Report on Form 10-K for the fiscal year ended October 29, 2017 filed with the SEC on December 15, 2017 and our Quarterly Report on Form 10-Q for the fiscal quarter ended April 29, 2018 filed with the SEC on May 24, 2018, which are incorporated by reference in this prospectus.

	Six Months Ended April 29, 2018	October 29, 2017	October 30, 2016	Fiscal Year Ended October 25, 2015	October 26, 2014	October 27, 2013
Ratio of earnings to fixed charges ⁽¹⁾	21.5x	18.4x	12.8x	14.8x	14.3x	4.2x

- (1) For purposes of determining the ratios above, earnings consist of income from continuing operations before income taxes, amortization of capitalized interest and fixed charges. Fixed charges consist of interest expense, amortization of debt expenses and an appropriate interest factor on operating leases.

Table of Contents

USE OF PROCEEDS

We intend to use the net proceeds from the sale of any securities offered under this prospectus for general corporate purposes unless otherwise indicated in the applicable prospectus supplement. General corporate purposes may include, but are not limited to, working capital, capital expenditures, the repayment and refinancing of debt, the acquisition of companies, businesses or technology assets, stock repurchases and the payment of dividends. We intend to temporarily invest the net proceeds until they are used for their intended purpose. We have not determined the amount of net proceeds to be used specifically for any of these purposes. As a result, management will retain broad discretion over the allocation of the net proceeds.

Table of Contents

DESCRIPTION OF DEBT SECURITIES

We may offer debt securities, which may be senior or subordinated. We refer to the senior debt securities and the subordinated debt securities collectively as debt securities. The following description summarizes the general terms and provisions of the debt securities. We will describe the specific terms of the debt securities and the extent, if any, to which the general provisions summarized below apply to any series of debt securities in the prospectus supplement relating to the series and any applicable free writing prospectus that we authorize to be delivered. When we refer to the Company, we, our, and us in this section, we mean Applied Materials, Inc. excluding our subsidiaries, unless the context otherwise requires or as otherwise expressly stated.

We may issue senior debt securities from time to time, in one or more series under a senior indenture dated as of June 8, 2011 between us and U.S. Bank National Association, which we refer to as the senior trustee. We may issue subordinated debt securities from time to time, in one or more series under a subordinated indenture to be entered into between us and a subordinated trustee to be named in a prospectus supplement, which we refer to as the subordinated trustee. The senior indenture and the form of the subordinated indenture are filed as exhibits to the registration statement of which this prospectus forms a part. Together, the senior indenture and the subordinated indenture are referred to as the indentures and, together, the senior trustee and the subordinated trustee are referred to as the trustees. This prospectus briefly outlines some of the provisions of the indentures. The following summary of the material provisions of the indentures is qualified in its entirety by the provisions of the indentures, including definitions of certain terms used in the indentures. Wherever we refer to particular sections of or defined terms in the indentures, those sections or defined terms are incorporated by reference in this prospectus or the applicable prospectus supplement. You should review the indentures that are filed as exhibits to the registration statement of which this prospectus forms a part for additional information.

None of the indentures will limit the amount of debt securities that we may issue. The applicable indenture will provide that debt securities may be issued up to an aggregate principal amount authorized from time to time by us and may be payable in any currency or currency unit designated by us in the applicable indenture or in amounts determined by reference to an index.

General

The senior debt securities will constitute our unsecured and unsubordinated general obligations and will rank pari passu with our other unsecured and unsubordinated obligations. The subordinated debt securities will constitute our unsecured and subordinated general obligations and will be junior in right of payment to our senior indebtedness (including senior debt securities), as described under the heading Certain Terms of the Subordinated Debt Securities Subordination.

The debt securities will be our unsecured obligations. Any secured debt or other secured obligations will be effectively senior to the debt securities to the extent of the value of the assets securing such debt or other obligations.

The applicable prospectus supplement and/or free writing prospectus will include any additional or different terms of the debt securities being offered, including the following terms:

the title of the debt securities;

whether the debt securities will be senior or subordinated debt securities, and, with respect to debt securities issued under the subordinated indenture, the terms on which they are subordinated;

any limit upon the aggregate principal amount of the debt securities;

the date or dates on which the principal and premium, if any, of the debt securities is payable;

the rate or rates (which may be fixed or variable) at which the debt securities will bear interest, or the manner of calculating such rate or rates, if applicable;

Table of Contents

the date or dates from which such interest will accrue, the interest payment dates on which such interest will be payable or the manner of determination of such interest payment dates and the related record dates;

any trustees, authenticating agents or paying agents, if different from those set forth in this prospectus;

the right, if any, to extend the interest payment periods or defer the payment of interest and the duration of that extension or deferral;

the period or periods within which, the price or prices at which and the terms and conditions upon which debt securities may be redeemed, in whole or in part, at our option;

the manner of paying principal and interest and the place or places where principal and interest will be payable;

our obligation, if any, to redeem, purchase or repay debt securities pursuant to any sinking fund or analogous provisions as at the option of a holder thereof;

the form of the debt securities;

if other than denominations of \$2,000 or any integral multiple of \$1,000 in excess thereof, the denominations in which the debt securities will be issuable;

the currency or currencies in which payment of the principal of, premium, if any, and interest on, the debt securities will be payable;

if the principal amount payable at the stated maturity of the debt securities will not be determinable as of any one or more dates prior to such stated maturity, the amount that will be deemed to be such principal amount as of any such date for any purpose;

the terms of any repurchase or remarketing rights;

whether the debt securities will be issued in global form, the terms upon which the debt securities will be exchanged for definitive form, the depositary for the debt securities and the form of legend;

any conversion or exchange features of the debt securities;

if other than the principal amount thereof, the portion of the principal amount of the debt securities that shall be payable upon declaration of acceleration of the maturity thereof;

any restrictive covenants or events of default in addition to or in lieu of those set forth in this prospectus;

any provisions granting special rights to holders when a specified event occurs;

if the amount of principal or any premium or interest on the debt securities may be determined with reference to an index or pursuant to a formula, the manner in which such amounts will be determined;

any special tax implications of the debt securities;

whether and upon what terms the debt securities may be defeased if different from the provisions set forth in this prospectus;

with regard to the debt securities that do not bear interest, the dates for certain required reports to the applicable trustee; and

any additional, eliminated or changed terms that will apply to the debt securities.

We may from time to time, without notice to or the consent of the holders of any series of debt securities, create and issue further debt securities of any such series ranking equally with the debt securities of such series in all respects (or in all respects other than (1) the payment of interest accruing prior to the issue date of such further debt securities or (2) the first payment of interest following the issue date of such further debt securities). Such further debt securities may be consolidated and form a single series with the debt securities of such series and have the same terms as to status, redemption or otherwise as the debt securities of such series.

Table of Contents

You may present debt securities for exchange or transfer in the manner, at the places and subject to the restrictions set forth in the debt securities and the applicable prospectus supplement. We will provide you those services without charge, although you may have to pay any tax or other governmental charge payable in connection with any exchange or transfer, as set forth in the indentures.

Debt securities will bear interest at a fixed rate or a floating rate. Debt securities bearing no interest or interest at a rate that at the time of issuance is below the prevailing market rate (called original issue discount securities) may be sold at a discount below their stated principal amount. Any U.S. federal income tax considerations applicable to such discounted debt securities or to certain debt securities issued at par that are treated as having been issued at a discount for U.S. federal income tax purposes will be described in the applicable prospectus supplement, to the extent not already discussed below under **Certain U.S. Federal Income Tax Considerations**.

We may issue debt securities with the principal amount payable on any principal payment date, or the amount of interest payable on any interest payment date, to be determined by reference to one or more currency exchange rates, securities or baskets of securities, commodity prices or indices. You may receive a payment of principal on any principal payment date, or a payment of interest on any interest payment date, that is greater than or less than the amount of principal or interest otherwise payable on those dates, depending on the value on those dates of the applicable currency, security or basket of securities, commodity or index. Information as to the methods for determining the amount of principal or interest payable on any date, the currencies, securities or baskets of securities, commodities or indices to which the amount payable on such date is linked and certain related tax considerations will be set forth in the applicable prospectus supplement.

Certain Terms of the Senior Debt Securities

Certain Covenants

Limitation on Liens. We will not, and will not permit any of our subsidiaries to, create, incur, assume or otherwise cause to become effective any Lien (other than permitted Liens) on any Principal Property or upon shares of stock of any Principal Subsidiary (whether such Principal Property or shares are now existing or owned or hereafter created or acquired), to secure any indebtedness of ours, any of our subsidiaries or any indebtedness of any other Person, unless we or such subsidiary also secures all payments due under the senior debt securities and all senior debt securities of any series having the benefit of this covenant (together with, if we shall so determine, any other indebtedness of ours or any subsidiary of ours then existing or thereafter created ranking equally with the senior debt securities), on an equal and ratable basis with such other indebtedness so secured (or, in the case of indebtedness subordinated to the senior debt securities, prior or senior thereto, with the same relative priority as the senior debt securities issued pursuant to the senior indenture will have with respect to such subordinated indebtedness) for so long as such other indebtedness shall be so secured. The senior indenture contains the following exceptions to the foregoing prohibition:

- (a) Liens existing on the date when we first issue the senior debt securities pursuant to the senior indenture;
- (b) Liens on property owned or leased by a Person existing at the time such Person is merged with or into or consolidated with us or any subsidiary of ours or we or one or more of our subsidiaries acquires directly or indirectly all or substantially all of the stock or assets of such Person; provided that such Liens were in existence prior to the contemplation of such merger, consolidation or acquisition and do not extend to any assets other than those of the Person merged into, consolidated with or acquired by us or such subsidiary and any improvements thereon or thereto;
- (c) Liens on property existing at the time of acquisition thereof by us or any subsidiary of ours, provided that such Liens were in existence prior to the contemplation of such acquisition and do not extend to any property other than the

property so acquired by us or such subsidiary and any improvements thereon or thereto;

Table of Contents

(d) Liens to secure indebtedness incurred prior to, at the time of or within 12 months after the later of the acquisition of any property and the completion of the construction, alteration, repair or improvement of any property, as the case may be, for the purpose of financing all or a part of the purchase price thereof or cost of the construction, alteration, repair or improvement thereof and Liens to the extent they secure indebtedness in excess of such purchase price or cost and for the payment of which recourse may be had only against such property;

(e) Liens in favor of the United States or any state, territory or possession thereof (or the District of Columbia), or any department, agency, instrumentality or political subdivision of the United States or any state, territory or possession thereof (or the District of Columbia), to secure partial, progress, advance or other payments pursuant to any contract or statute or to secure any indebtedness incurred for the purpose of financing all or any part of the purchase price or the cost of constructing or improving the property subject to such Liens;

(f) any Lien securing indebtedness of a subsidiary owing to us or to one or more of our subsidiaries;

(g) Liens imposed by law, for example mechanics', workmen's, repairmen's or other similar Liens arising in the ordinary course of business; pledges or deposits under workmen's compensation or similar legislation or in certain other circumstances; Liens in connection with legal proceedings; and Liens for taxes or assessments or governmental charges or levies not yet due or delinquent, or which can thereafter be paid without penalty, or which are being contested in good faith by appropriate proceedings;

(h) Liens created, incurred or assumed in connection with an industrial revenue bond, pollution control bond or similar financing between us or any subsidiary of ours and any federal, state or municipal government or other government body or quasi-governmental agency;

(i) any extension, renewal or replacement (or successive extensions, renewals or replacements) in whole or in part of any Lien referred to in clauses (a) through (h) above, inclusive, so long as (1) the principal amount of the indebtedness secured thereby does not exceed the principal amount of indebtedness so secured at the time of the extension, renewal or replacement (except that, where an additional principal amount of indebtedness is incurred to provide funds for the completion of a specific project, the additional principal amount, and any related financing costs, may be secured by the Lien as well) and (2) the Lien is limited to the same property subject to the Lien so extended, renewed or replaced (and improvements on the property); and

(j) any Lien on a Principal Property or the shares of stock of a Principal Subsidiary that would not otherwise be permitted by clauses (a) through (i) above, inclusive, securing indebtedness which, together with:

the aggregate outstanding principal amount of all other indebtedness of us and our subsidiaries secured by Liens on a Principal Property or the shares of stock of a Principal Subsidiary that is permitted solely pursuant to this clause (j), and

the aggregate Value of existing Sale and Leaseback Transactions that are permitted solely pursuant to clause (c) of Limitation on Sale and Leaseback Transactions and are still in existence,

does not exceed 15% of our Consolidated Net Tangible Assets.

In order to constitute a Principal Property under the senior indenture, a property must have a book value in excess of 1% of our most recently calculated Consolidated Net Tangible Assets.

Limitation on Sale and Leaseback Transactions. We will not, and will not permit any of our subsidiaries to, enter into any Sale and Leaseback Transaction with respect to any Principal Property unless:

(a) we or such subsidiary could incur indebtedness, in a principal amount at least equal to the Value of such Sale and Leaseback Transaction, secured by a Lien on the Principal Property to be leased (without equally and ratably securing debt securities of any series having the benefit of this covenant) pursuant to clauses (a) through (i) under Limitations on Liens above;

Table of Contents

(b) we or such subsidiary apply, within 270 days of the effective date of the Sale and Leaseback Transaction, an amount equal to the Value of the Sale and Leaseback Transaction to either (or a combination of) the voluntary retirement of Funded Debt or to the acquisition of property; or

(c) the aggregate Value of such Sale and Leaseback Transaction plus the Value of all other Sale and Leaseback Transactions of Principal Properties entered into after the date of the issuance of the senior debt securities permitted solely by this clause (c) and still in existence, plus the aggregate amount of all indebtedness secured by Liens permitted solely by clause (j) of Limitation on Liens does not exceed 15% of our Consolidated Net Tangible Assets.

Certain Other Covenants. The senior indenture will contain certain other covenants regarding, among other matters, corporate existence and reports to holders of senior debt securities. Unless we indicate otherwise in a prospectus supplement, the senior debt securities will not contain any additional financial or restrictive covenants, including covenants relating to total indebtedness, interest coverage, stock repurchases, recapitalizations, dividends and distributions to shareholders or current ratios. The provisions of the senior indenture do not afford holders of senior debt securities issued thereunder protection in the event of a sudden or significant decline in our credit quality or in the event of a takeover, recapitalization or highly leveraged or similar transaction involving us or any of our affiliates that may adversely affect such holders except to the extent set forth therein.

Consolidation, Merger and Sale of Assets. Unless we indicate otherwise in a prospectus supplement, we will not consolidate with, merge with or into, or sell, convey, transfer, lease or otherwise dispose of all or substantially all of our and our subsidiaries' property and assets taken as a whole (in one transaction or a series of related transactions) to any Person, or permit any Person to merge with or into us, unless:

we shall be the continuing Person, or the Person (if other than us) formed by such consolidation or into which we are merged or that acquired or leased such property and assets (the "Surviving Person"), shall be a Person organized and validly existing under the laws of the United States of America or any jurisdiction thereof, and shall expressly assume, by a supplemental indenture, executed and delivered to the senior trustee, all of our obligations under the senior indenture and the senior debt securities;

immediately after giving effect to such transaction, no default or event of default (each as defined in the senior indenture) shall have occurred and be continuing; and

we deliver to the senior trustee an officer's certificate and opinion of counsel, in each case stating that such consolidation, merger or transfer and such supplemental indenture complies with this provision and that all conditions precedent provided for in the indenture or any applicable supplemental indenture relating to such transaction have been complied with.

The restrictions in the second and third bullets shall not be applicable to:

the merger or consolidation of us with an affiliate of ours if our board of directors determines in good faith that the purpose of such transaction is principally to change our state of incorporation or convert our form of organization to another form; or

the merger of us with or into a single direct or indirect wholly owned subsidiary of ours pursuant to Section 251(g) (or any successor provision) of the General Corporation Law of the State of Delaware (or similar provision of our state of incorporation).

The Surviving Person will succeed to, and be substituted for, us under the senior indenture and the senior debt securities and, except in the case of a lease, we shall be released of all obligations under the senior indenture and the senior debt securities.

No Protection in the Event of a Change of Control. Unless we indicate otherwise in a prospectus supplement with respect to a particular series of senior debt securities, the senior debt securities will not contain any

Table of Contents

provisions that may afford holders of the senior debt securities protection in the event we have a change of control or in the event of a highly leveraged transaction (whether or not such transaction results in a change of control).

Definition of Certain Terms. The following are the meanings of terms that are important in understanding the covenants described above.

Capital Lease Obligation means, at the time any determination thereof is to be made, the amount of the liability in respect of a capital lease that would at that time be required to be capitalized on a balance sheet in accordance with U.S. GAAP.

Consolidated Net Tangible Assets means, at any date, the total assets less (a) all current liabilities (excluding any notes and loans payable, current maturities of long-term debt, the current portion of deferred revenue and obligations under capital leases) and (b) Intangible Assets, all as shown on or reflected in our most recent consolidated balance sheet prepared in accordance with U.S. GAAP.

Funded Debt means, as of any date of determination, our indebtedness or the indebtedness of a subsidiary maturing by its terms more than one year after its creation and indebtedness classified as long-term debt under U.S. GAAP and in each case ranking at least *pari passu* with the senior debt securities.

indebtedness means, with respect to any specified Person, any indebtedness of such Person, whether or not contingent:

(1) in respect of borrowed money;

(2) evidenced by bonds, notes, debentures or similar instruments or letters of credit (or reimbursement agreements in respect thereof); and

(3) in respect of Capital Lease Obligations.

In addition, the term **indebtedness** includes (x) all indebtedness (as defined above) of others secured by a Lien on any asset of the specified Person (whether or not such indebtedness is assumed by the specified Person), *provided* that the amount of such indebtedness will be the lesser of (A) the fair market value of such asset at such date of determination and (B) the amount of such indebtedness, and (y) to the extent not otherwise included, the guarantee by the specified Person of any indebtedness (as defined above) of any other Person.

Intangible Assets means the value (net of applicable reserves) of (i) all trade names, trademarks, trade secrets, licenses, patents, copyrights and goodwill; (ii) organizational and development costs; (iii) deferred charges (other than prepaid items such as insurance, taxes, interest, commissions, rents and similar items and tangible assets being amortized); and (iv) unamortized debt discount and expenses, less unamortized premium.

Lien means, with respect to any asset, any mortgage, lien, pledge, charge, security interest or encumbrance of any kind in respect of such asset, whether or not filed, recorded or otherwise perfected under applicable law, including any conditional sale or other title retention agreement.

Original Issue Discount Security means any debt security which provides for an amount less than the principal amount thereof to be due and payable upon a declaration of acceleration of maturity thereof pursuant to the senior indenture.

Person means any individual, corporation, partnership, limited liability company, joint venture, joint-stock company, association, trust, unincorporated organization or government or any agency or political subdivision of a government

or governmental agency provided, however, for purposes of Certain Covenants Consolidation, Merger and Sale of Assets, Person shall not include any individual, joint venture, association, unincorporated organization or government or any agency or political subdivision thereof.

Table of Contents

Principal Property means any single parcel of real property or any permanent improvement thereon (i) owned by us or any of our subsidiaries located in the United States, including our principal corporate office, any manufacturing facility or plant or any portion thereof and (ii) having a book value, as of the date of determination, in excess of 1% of our most recently calculated Consolidated Net Tangible Assets. Principal Property does not include any property that our board of directors has determined not to be of material importance to the business conducted by our subsidiaries and us, taken as a whole.

Principal Subsidiary means any direct or indirect subsidiary of ours that owns a Principal Property.

Sale and Leaseback Transaction means any arrangement with any Person providing for the leasing by us or any of our subsidiaries of any Principal Property which has been or is to be sold or transferred by us or such subsidiary to such Person, excluding (1) leases for a term, including renewals at the option of the lessee, of not more than three years, and (2) leases between us and any of our subsidiaries or between our subsidiaries.

U.S. GAAP means United States generally accepted accounting principles set forth in the FASB Accounting Standards Codification or in such other statements by such other entity as have been approved by a significant segment of the accounting profession, which are in effect from time to time.

Value means, with respect to a Sale and Leaseback Transaction, an amount equal to the net present value of the lease payments (other than amounts required to be paid on account of property taxes, maintenance, repairs, insurance, water rates and other items that do not constitute payments for property rights) with respect to the term of the lease remaining on the date as of which the amount is being determined, without regard to any renewal or extension options contained in the lease, discounted at the weighted average interest rate on the debt securities of all series (including the yield to maturity on any Original Issue Discount Securities) which are outstanding on the effective date of such Sale and Leaseback Transaction.

Events of Default

The senior indenture defines an Event of Default with respect to any series of senior debt securities issued pursuant to the senior indenture. Events of Default on the senior debt securities are any of the following:

default in the payment of the principal or any premium on senior debt securities when due (whether at maturity, upon acceleration, redemption or otherwise);

default for 30 days in the payment of interest on senior debt securities when due;

failure by us to observe or perform any other term of the senior indenture (other than those referred to in the two bullets above) for a period of 90 days after we receive a notice of default stating we are in breach. The notice must be sent by either the senior trustee or holders of not less than 25% of the principal amount of the senior debt securities of the affected series;

certain events in bankruptcy, insolvency or reorganization with respect to us; and

any other Event of Default provided for in such series of senior debt securities as may be specified in the applicable prospectus supplement.

An Event of Default under one series of senior debt securities issued pursuant to the senior indenture does not necessarily constitute an Event of Default under any other series of senior debt securities. The senior indenture provides that the senior trustee may withhold notice to the holders of any series of senior debt securities issued thereunder of any default if the trustee in good faith determines it is in the interest of such holders to do so.

Remedies If an Event of Default Occurs. The senior indenture provides that if an Event of Default has occurred with respect to a series of senior debt securities and has not been cured, the senior trustee or the holders

Table of Contents

of not less than 25% in principal amount of the senior debt securities of that series may declare the entire principal amount of all the senior debt securities of that series to be due and immediately payable. This is called a declaration of acceleration of maturity. If an Event of Default occurs because of certain events in bankruptcy, insolvency or reorganization with respect to us, the principal amount of all the senior debt securities will be automatically accelerated, without any action by the senior trustee or any holder. At any time after the principal of a series of senior debt securities has been declared due and payable, and before any judgment or decree for the payment of the amount due has been obtained or entered for that series of senior debt securities as provided in the senior indenture, the holders of a majority in aggregate principal amount of the senior debt securities of the affected series may by written notice to us and the senior trustee may, on behalf of the holders of the senior debt securities of the affected series, rescind and annul the declaration and its consequences if:

we have paid or caused to be paid or deposited with the senior trustee an amount sufficient to pay all matured installments of interest on the series of debt securities and the principal of and premium, if any, on the series of debt securities that have become due otherwise than by acceleration (with interest on the principal and premium, if any, and, to the extent that a payment is enforceable under applicable law, upon overdue installments of interest, at the rate expressed in the series of debt securities to the date of such payment or deposit); and

any and all Events of Default under the indenture with respect to that series, other than the nonpayment of principal on the series of senior debt securities that shall have become due solely by such declaration of acceleration, has been remedied or waived as provided in the senior indenture.

Except as may otherwise be provided in the senior indenture in cases of default, where the senior trustee has some special duties, the senior trustee is not required to take any action under the senior indenture at the request of any holders unless the holders offer the senior trustee protection from expenses and liability (called an indemnity). If indemnity satisfactory to the senior trustee is provided, the holders of a majority in principal amount of the outstanding senior debt securities of the affected series may direct the time, method and place of conducting any lawsuit or other formal legal action seeking any remedy available to the senior trustee. Subject to certain exceptions contained in the senior indenture, these majority holders may also direct the senior trustee in performing any other action under the senior indenture.

Before you bypass the senior trustee and bring your own lawsuit or other formal legal action or take other steps to enforce your rights or protect your interests relating to the senior debt securities, the following must occur:

you must give the senior trustee written notice that an Event of Default has occurred and remains uncured;

the holders of not less than 25% in principal amount of all outstanding senior debt securities of the affected series must make a written request that the senior trustee take action because of the Event of Default, and must offer reasonable indemnity to the senior trustee against the costs, expenses and other liabilities of taking that action; and

the senior trustee must have failed to take action for 60 days after receipt of the above notice and offer of indemnity and during such 60-day period, the senior trustee has not received a contrary instruction from holders of a majority in principal amount of all outstanding senior debt securities.

However, you are entitled at any time to bring a lawsuit for the payment of money due on your senior debt securities on or after the due date of that payment.

We will furnish to the senior trustee every year a written statement of two of our officers certifying that to their knowledge we are in compliance with the senior indenture and the senior debt securities, or else specifying any default.

Table of Contents

Satisfaction and Discharge

The senior indenture will cease to be of further effect and the senior trustee, upon our demand and at our expense, will execute such instruments as we reasonably request acknowledging the satisfaction and discharge of the senior indenture upon compliance with certain conditions, including:

(1) either

our having delivered to the senior trustee for cancellation all senior debt securities theretofore authenticated under the senior indenture; or

all senior debt securities of any series outstanding under the senior indenture not theretofore delivered to the senior trustee for cancellation shall have become due and payable or are by their terms to become due and payable within one year and we shall have deposited with the senior trustee sufficient cash or U.S. government or U.S. government agency notes or bonds that will generate enough cash to pay, at maturity or upon redemption, all such senior debt securities of any series outstanding under the senior indenture; or

(2) our having paid all sums payable by us under the senior indenture, as and when the same shall be due and payable.

In either of (1) or (2) we shall have delivered to the senior trustee an officer's certificate and an opinion of counsel, each stating that all conditions relating to the satisfaction and discharge of the indenture have been satisfied.

Under current U.S. federal tax law, the deposit and our legal release from the senior debt securities would be treated as though we took back your senior debt securities and gave you your share of the cash and senior debt securities or bonds deposited in trust. In that event, you could recognize gain or loss on the senior debt securities you give back to us. Purchasers of the senior debt securities should consult their own advisers with respect to the tax consequences to them of such deposit and discharge, including the applicability and effect of tax laws other than the U.S. income tax law.

Defeasance

Unless the applicable prospectus supplement provides otherwise, the following discussion of legal defeasance and discharge and covenant defeasance will apply to any series of debt securities issued under the indentures.

Full Defeasance. We can legally release ourselves from any payment or other obligations on the debt securities of any series (called "full defeasance") if the following conditions are met:

we deposit in trust for your benefit and the benefit of all other direct holders of the debt securities of the same series a combination of money and U.S. government or U.S. government agency notes or bonds that will generate enough cash to make interest, principal, any premium and any other payments on the debt

securities of that series on their various due dates;

there is a change in current U.S. federal tax law or an IRS ruling that lets us make the above deposit without causing you to be taxed on the debt securities any differently than if we did not make the deposit and instead repaid the debt securities ourselves when due. Under current U.S. federal tax law, the deposit and our legal release from the debt securities would be treated as though we took back your debt securities and gave you your share of the cash and debt securities or bonds deposited in trust. In that event, you could recognize gain or loss on the debt securities you give back to us;

we deliver to the trustee a legal opinion of our counsel confirming the tax law change or ruling described above;

Table of Contents

we deliver to the trustee an officer's certificate and an opinion of counsel, each stating that all conditions precedent relating to the defeasance have been fulfilled; and

no Event of Default has occurred and is continuing, and no event which with notice or lapse of time or both would become an Event of Default has occurred and is continuing, on the date of the deposit.

If we accomplished a full defeasance, as described above, you would have to rely solely on the trust deposit for repayment of the debt securities. You could not look to us for repayment in the event of any shortfall.

However, even if we make the deposit in trust and deliver an opinion as discussed above, a number of our obligations relating to the debt securities will remain. These include our obligations:

to register the transfer and exchange of debt securities;

to replace mutilated, destroyed, lost or stolen debt securities;

to maintain paying agencies; and

to hold money for payment in trust.

Covenant Defeasance. Even absent a change to current U.S. federal tax law, we can make the same type of deposit described above and be released from some of the covenants on the debt securities of any series. This is called covenant defeasance. In that event, you would lose the protection of those covenants but would gain the protection of having money and securities set aside in trust to repay the debt securities. In order to achieve covenant defeasance, the following conditions must be met:

we deposit in trust for your benefit and the benefit of all other direct holders of the debt securities of the same series a combination of money and U.S. government or U.S. government agency notes or bonds that will generate enough cash to make interest, principal, any premium and any other payments on the debt securities of that series on their various due dates;

we deliver to the trustee a legal opinion of our counsel confirming that under current U.S. federal income tax law we may make the above deposit without causing you to be taxed on the debt securities any differently than if we did not make the deposit and instead repaid the debt securities ourselves when due;

we deliver to the trustee an officer's certificate and an opinion of counsel, each stating that all conditions precedent relating to the defeasance have been fulfilled; and

no Event of Default has occurred and is continuing, and no event which with notice or lapse of time or both would become an Event of Default has occurred and is continuing, on the date of the deposit.

If we accomplish covenant defeasance, you can still look to us for repayment of the debt securities if there were a shortfall in the trust deposit. In fact, if one of the Events of Default occurred (such as our bankruptcy) and the debt securities become immediately due and payable, there may be such a shortfall. Depending on the event causing the default, you may not be able to obtain payment of the shortfall.

Modification and Waiver

There are three types of changes we can make to the senior indenture and the senior debt securities.

Changes Requiring Approval of the Holder. First, there are changes that cannot be made to the senior debt securities without specific approval of the holder. The following is a list of those types of changes:

change the stated maturity of the principal or interest on any senior debt securities of such series;

reduce any amounts due on any senior debt securities of such series;

Table of Contents

reduce the amount of principal payable upon acceleration of the maturity or redemption of the senior debt securities upon redemption, maturity, a change of control or following an Event of Default;

change the place or currency of payment for the senior debt securities;

change the terms of or waive any redemption provisions;

impair the holder's right to sue for the enforcement of any payment on or with respect to the senior debt securities;

reduce the percentage in principal amount of the senior debt securities, the approval of whose holders is needed to modify or amend the senior indenture or the senior debt securities;

reduce the percentage in principal amount of the senior debt securities, the approval of whose holders is needed to waive compliance with certain provisions of the senior indenture or to waive certain defaults; and

modify any other aspect of the provisions dealing with modification and waiver of the senior indenture, except to increase the percentage required for any modification or to provide that other provisions of the senior indenture may not be modified or waived without consent of the holder of each security of such series affected by the modification.

Changes Not Requiring Approval. The second type of change does not require any vote by holders of the senior debt securities. This type is limited to the following types of changes:

cure any ambiguity, defect or inconsistency;

comply with covenants in the senior indenture regarding mergers and sales of assets;

add to the covenants applicable to us, add any additional Events of Default or secure the senior debt securities;

provide for the issuance of senior debt securities or issue additional senior debt securities of any series;

evidence and provide for a successor senior trustee and add to or change the provisions of the senior indenture to provide for or facilitate the administration of the trusts under the senior indenture; or

comply with requirements of the SEC in order to effect or maintain the qualification of the senior indenture under the Trust Indenture Act of 1939 (the Trust Indenture Act).

We also do not need any approval to make changes that affect only senior debt securities to be issued under the senior indenture after the changes take effect. We may also make changes or obtain waivers that do not adversely affect the senior debt securities, even if they affect other senior debt securities issued under the senior indenture. In those cases, we need only obtain any required approvals from the holders of the affected senior debt securities.

Changes Requiring a Majority Vote. Any other change to the senior indenture and the senior debt securities would require the following approval:

if the change affects only senior debt securities of one series, it must be approved by the holders of a majority in principal amount of the senior debt securities of that series.

if the change affects the senior debt securities as well as the senior debt securities of one or more other series issued under the senior indenture, it must be approved by the holders of a majority in principal amount of the senior debt securities and each other series of senior debt securities affected by the change.

in each case, the required approval must be given by written consent.

Table of Contents

The same vote would be required for us to obtain a waiver of a past default. However, we cannot obtain a waiver of a payment default or a waiver with respect to any other aspect of the senior indenture and the senior debt securities listed in the first category described previously under **Changes Requiring Approval of the Holder** unless we obtain your individual consent to the waiver.

Further Details Concerning Voting

The senior debt securities will not be considered outstanding, and therefore not eligible to vote, if we have deposited or set aside in trust for you money for their payment or redemption. The senior debt securities will also not be eligible to vote if they have been fully defeased as described above under **Full Defeasance**.

We will generally be entitled to set any day as a record date for the purpose of determining the holders of outstanding senior debt securities that are entitled to vote or take other action under the senior indenture. In certain limited circumstances, the senior trustee will be entitled to set a record date for action by holders. If we or the senior trustee set a record date for a vote or other action to be taken by holders of senior debt securities, that vote or action may be taken only by persons who are holders of outstanding senior debt securities on the record date and must be taken within 180 days following the record date or another period that we may specify (or as the senior trustee may specify, if it set the record date). We may shorten this period from time to time.

No Personal Liability of Incorporators, Stockholders, Officers, Directors

The senior indenture provides that no recourse shall be had under any obligation, covenant or agreement of ours in the senior indenture or in any of the senior debt securities or because of the creation of any indebtedness represented thereby, against any of our incorporators, stockholders, officers or directors, past, present or future, or of any predecessor or successor entity thereof under any law, statute or constitutional provision or by the enforcement of any assessment or by any legal or equitable proceeding or otherwise. Each holder, by accepting the senior debt securities, waives and releases all such liability.

Concerning the Senior Trustee

The senior trustee will be appointed by us as paying agent, registrar and custodian with regard to the senior debt securities. The senior trustee or its affiliates may from time to time in the future provide banking and other services to us in exchange for a fee.

The senior indenture provides that, prior to the occurrence of an Event of Default with respect to the senior debt securities of a series and after the curing or waiving of all such Events of Default with respect to that series, the senior trustee will not be liable except for the performance of such duties as are specifically set forth in the senior indenture. If an Event of Default has occurred and has not been cured or waived, the senior trustee will exercise such rights and powers vested in it under the senior indenture and will use the same degree of care and skill in its exercise as a prudent person would exercise under the circumstances in the conduct of such person's own affairs.

The senior indenture and the provisions of the Trust Indenture Act incorporated by reference therein contain limitations on the rights of the senior trustee thereunder, should it become a creditor of ours or any of our subsidiaries, to obtain payment of claims in certain cases or to realize on certain property received by it in respect of any such claims, as security or otherwise. The senior trustee is permitted to engage in other transactions, provided that if it acquires any conflicting interest (as defined in the Trust Indenture Act), it must eliminate such conflict or resign.

Unclaimed Funds

All funds deposited with the senior trustee or any paying agent for the payment of principal, interest, premium or additional amounts in respect of the senior debt securities that remain unclaimed for one year after

Table of Contents

the date upon which the principal of, premium, if any, or interest on such debt securities shall have become due and payable will be repaid to us. Thereafter, any right of any holder of senior debt securities to such funds shall be enforceable only against us, and the senior trustee and paying agents will have no liability therefor.

Governing Law

The senior indenture and the senior debt securities will be governed by, and construed in accordance with, the laws of the State of New York.

Certain Terms of the Subordinated Debt Securities

Other than the terms of the subordinated indenture and subordinated debt securities relating to subordination or otherwise as described in the prospectus supplement relating to a particular series of subordinated debt securities, the terms of the subordinated indenture and subordinated debt securities are identical in all material respects to the terms of the senior indenture and senior debt securities, except the subordinated indenture and subordinated debt securities will not include a limitation on liens or a limitation on sale and leaseback transactions.

Additional or different subordination terms may be specified in the prospectus supplement applicable to a particular series.

Subordination. The indebtedness evidenced by the subordinated debt securities is subordinate to the prior payment in full of all of our senior indebtedness, as defined in the subordinated indenture. During the continuance beyond any applicable grace period of any default in the payment of principal, premium, interest or any other payment due on any of our senior indebtedness, we may not make any payment of principal of, or premium, if any, or interest on the subordinated debt securities, except under the limited circumstances set forth in the subordinated indenture. In addition, upon any payment or distribution of our assets upon any dissolution, winding up, liquidation or reorganization, the payment of the principal of, or premium, if any, and interest on the subordinated debt securities will be subordinated to the extent provided in the subordinated indenture in right of payment to the prior payment in full of all our senior indebtedness. Because of this subordination, if we dissolve or otherwise liquidate, holders of our subordinated debt securities may receive less, ratably, than holders of our senior indebtedness. The subordination provisions do not prevent the occurrence of an event of default under the subordinated indenture.

The term *senior indebtedness* of a person means with respect to such person the principal of, premium, if any, interest on, and any other payment due pursuant to any of the following, whether outstanding on the date of the subordinated indenture or incurred by that person in the future:

all of the indebtedness of that person for money borrowed;

all of the indebtedness of that person evidenced by notes, debentures, bonds or other securities sold by that person for money;

all of the lease obligations which are capitalized on the books of that person in accordance with generally accepted accounting principles;

all indebtedness of others of the kinds described in the first two bullet points above and all lease obligations of others of the kind described in the third bullet point above that the person, in any manner, assumes or guarantees or that the person in effect guarantees through an agreement to purchase, whether that agreement is contingent or otherwise; and

all renewals, extensions or refundings of indebtedness of the kinds described in the first, second or fourth bullet point above and all renewals or extensions of leases of the kinds described in the third or fourth bullet point above;

Table of Contents

unless, in the case of any particular indebtedness, renewal, extension or refunding, the instrument creating or evidencing it or the assumption or guarantee relating to it expressly provides that such indebtedness, renewal, extension or refunding is not superior in right of payment to the subordinated debt securities. Our senior debt securities constitute senior indebtedness for purposes of the subordinated indenture.

Form of Securities; Registered Global Securities

Each debt security will be represented either by a certificate issued in definitive form to a particular investor or by one or more global securities representing the entire issuance of securities. Unless the applicable prospectus supplement provides otherwise, certificated securities in definitive form and global securities will be issued in registered form. Definitive securities name you or your nominee as the owner of the security, and in order to transfer or exchange these securities or to receive payments other than interest or other interim payments, you or your nominee must physically deliver the securities to the trustee, registrar, paying agent or other agent, as applicable. Global securities name a depositary or its nominee as the owner of the debt securities represented by these global securities. The depositary maintains a computerized system that will reflect each investor's beneficial ownership of the securities through an account maintained by the investor with its broker/dealer, bank, trust company or other representative, as we explain more fully below.

Unless the applicable prospectus supplement provides otherwise, we will issue the registered debt securities in the form of one or more fully registered global securities that will be deposited with a depositary or its nominee identified in the applicable prospectus supplement and registered in the name of that depositary or nominee. In those cases, one or more registered global securities will be issued in a denomination or aggregate denominations equal to the portion of the aggregate principal or face amount of the securities to be represented by registered global securities. Unless and until it is exchanged in whole for securities in definitive registered form, a registered global security may not be transferred except as a whole by and among the depositary for the registered global security, the nominees of the depositary or any successors of the depositary or those nominees.

Any specific terms of the depositary arrangement with respect to any securities to be represented by a registered global security will be described in the prospectus supplement relating to those securities. We anticipate that the following provisions will apply to all depositary arrangements.

Ownership of beneficial interests in a registered global security will be limited to persons, called participants, that have accounts with the depositary or persons that may hold interests through participants. Upon the issuance of a registered global security, the depositary will credit, on its book-entry registration and transfer system, the participants' accounts with the respective principal or face amounts of the securities beneficially owned by the participants. Any dealers, underwriters or agents participating in the distribution of the securities will designate the accounts to be credited. Ownership of beneficial interests in a registered global security will be shown on, and the transfer of ownership interests will be effected only through, records maintained by the depositary, with respect to interests of participants, and on the records of participants, with respect to interests of persons holding through participants. The laws of some states may require that some purchasers of securities take physical delivery of these securities in definitive form. These laws may impair your ability to own, transfer or pledge beneficial interests in registered global securities.

So long as the depositary, or its nominee, is the registered owner of a registered global security, that depositary or its nominee, as the case may be, will be considered the sole owner or holder of the securities represented by the registered global security for all purposes under the applicable indenture. Except as described below, owners of beneficial interests in a registered global security will not be entitled to have the securities represented by the registered global security registered in their names, will not receive or be entitled to receive physical delivery of the securities in

definitive form and will not be considered the owners or holders of the securities under the applicable indenture. Accordingly, each person owning a beneficial interest in a registered global security must rely on the procedures of the depositary for that registered global security and, if that person is not a participant, on the procedures of the participant through which the person owns its interest, to exercise

Table of Contents

any rights of a holder under the applicable indenture. We understand that under existing industry practices, if we request any action of holders or if an owner of a beneficial interest in a registered global security desires to give or take any action that a holder is entitled to give or take under the applicable indenture, the depositary for the registered global security would authorize the participants holding the relevant beneficial interests to give or take that action, and the participants would authorize beneficial owners owning through them to give or take that action or would otherwise act upon the instructions of beneficial owners holding through them.

Principal, premium, if any, and interest payments on debt securities represented by a registered global security registered in the name of a depositary or its nominee will be made to the depositary or its nominee, as the case may be, as the registered owner of the registered global security. None of us, the trustees or any other agent of ours or agent of the trustees will have any responsibility or liability for any aspect of the records relating to payments made on account of beneficial ownership interests in the registered global security or for maintaining, supervising or reviewing any records relating to those beneficial ownership interests.

We expect that the depositary for any of the securities represented by a registered global security, upon receipt of any payment of principal, premium, interest or other distribution of underlying securities or other property to holders on that registered global security, will immediately credit participants' accounts in amounts proportionate to their respective beneficial interests in that registered global security as shown on the records of the depositary. We also expect that payments by participants to owners of beneficial interests in a registered global security held through participants will be governed by standing customer instructions and customary practices, as is now the case with the securities held for the accounts of customers or registered in street name, and will be the responsibility of those participants.

We will only issue securities in definitive form in exchange for the registered global security if:

If the depositary for any of the securities represented by a registered global security is at any time unwilling or unable to continue as depositary or ceases to be a clearing agency registered under the Exchange Act, and a successor depositary registered as a clearing agency under the Exchange Act is not appointed by us within 90 days;

an event of default has occurred and is continuing, and the depositary requests the issuance of the securities in definitive form; or

we determine not to have the securities represented by registered global securities.

In all cases, any securities issued in definitive form in exchange for a registered global security will be registered in the name or names that the depositary gives to the relevant trustee or other relevant agent of ours or theirs. It is expected that the depositary's instructions will be based upon directions received by the depositary from participants with respect to ownership of beneficial interests in the registered global security that had been held by the depositary.

Table of Contents

CERTAIN U.S. FEDERAL INCOME TAX CONSIDERATIONS

The following is a summary of certain United States federal income tax considerations that may be relevant to persons considering the purchase of certain debt securities covered by this prospectus. For a discussion of certain United States federal income tax considerations that may be relevant to persons considering the purchase of indexed debt securities, floating rate notes, dual currency notes or notes providing for contingent payments, please refer to the related prospectus supplement. You should consult your own tax advisors regarding the tax consequences of the purchase, ownership and disposition of any securities described in this prospectus in light of your particular facts and circumstances and any consequences arising under the laws of any state, local, foreign or other taxing jurisdiction.

This summary, which does not represent tax advice, is based on laws, regulations, rulings and decisions now in effect, all of which are subject to change (including retroactive changes in effective dates) or possible differing interpretations. This summary deals only with debt securities that will be held as capital assets and, except where otherwise specifically stated, is addressed only to persons who purchase debt securities in the initial offering. It does not address tax considerations applicable to investors that may be subject to special tax rules, such as banks, thrifts, real estate investment trusts, regulated investment companies, tax-exempt entities, insurance companies, dealers in securities or currencies, traders in securities or commodities electing to mark to market, persons that will hold debt securities as a hedge against currency risk or as a position in a straddle or conversion transaction, or as part of a synthetic security or other integrated financial transaction or persons that have a functional currency other than the U.S. dollar. Prospective purchasers of debt securities should review the related prospectus supplements for summaries of special United States federal income tax considerations that may be relevant to a particular issue of debt securities. In addition, prospective purchasers should note that this summary does not address other U.S. federal tax consequences (such as estate, gift and net investment income tax consequences) or any state, local or foreign tax consequences.

As used herein, the term **United States Holder** means a beneficial owner of a debt security that is, for U.S. federal income tax purposes, (i) a citizen or resident of the United States, (ii) a corporation (or an entity taxable as a corporation) created or organized in or under the law of the United States, any state thereof or the District of Columbia, or (iii) otherwise subject to U.S. federal income taxation on a net basis with respect to a debt security. If an entity or arrangement treated as a partnership for United States federal income tax purposes holds debt securities, the United States federal income tax treatment of partners will generally depend upon the status of the partner and the activities of the partnership. Partners of a partnership holding debt securities should accordingly consult their own tax advisors. As used herein, the term **Non-United States Holder** means a beneficial owner of a debt security that is not a United States Holder.

United States Holders

United States Holders that use an accrual method of accounting for tax purposes (**accrual method holders**) generally are required to include certain amounts in income no later than the time such amounts are reflected on certain financial statements (the **book/tax conformity rule**). The application of the book/tax conformity rule thus may require the accrual of income earlier than would be the case under the general tax rules described below, although it is not clear to what types of income the book/tax conformity rule applies. This rule generally is effective for tax years beginning after December 31, 2017 or, for debt securities issued with original issue discount, for tax years beginning after December 31, 2018. Accrual method holders should consult with their own tax advisors regarding the potential applicability of the book/tax conformity rule to their particular situation.

Payments or Accruals of Interest

Payments or accruals of qualified stated interest, as defined below under Original Issue Discount, on a debt security will be taxable to a United States Holder as ordinary interest income at the time that such payments are accrued or are received, in accordance with the United States Holder's method of tax accounting.

Table of Contents

If such payments of interest are made in foreign currency with respect to a debt security that is denominated in such foreign currency, the amount of interest income realized by a United States Holder that uses the cash method of tax accounting will be the U.S. dollar value of the specified currency payment based on the spot rate of exchange on the date of receipt regardless of whether the payment is in fact converted into U.S. dollars. No exchange gain or loss will be recognized with respect to the receipt of such payment (other than exchange gain or loss realized on the disposition of the foreign currency so received, see *Transactions in Foreign Currency* below). A United States Holder of debt securities that uses the cash method of tax accounting and receives a payment of interest in U.S. dollars should include in income the amount of U.S. dollars received. A United States Holder that uses the accrual method of tax accounting will accrue interest income on the foreign currency debt security in the relevant foreign currency and translate the amount accrued into U.S. dollars based on:

the average exchange rate in effect during the interest accrual period, or portion thereof, within such holder's taxable year (or with respect to an interest accrual period that spans more than one taxable year, at the average exchange rate for the partial period within the taxable year); or

at such holder's election, at the spot rate of exchange on (i) the last day of the accrual period, or the last day of the taxable year within such accrual period if the accrual period spans more than one taxable year, or (ii) the date of receipt, if such date is within five business days of the last day of the accrual period.

Such election must be applied consistently by the United States Holder to all debt instruments from year to year and can be changed only with the consent of the Internal Revenue Service (IRS). A United States Holder that uses the accrual method of tax accounting will recognize foreign currency gain or loss on the receipt of an interest payment made relating to a foreign currency debt security if the spot rate of exchange on the date the payment is received differs from the rate applicable to a previous accrual of that interest income. Such foreign currency gain or loss will be treated as ordinary income or loss, but generally will not be treated as an adjustment to interest income received on the debt securities.

Purchase, Sale and Retirement of Debt Securities

A United States Holder's tax basis in a debt security generally will equal the cost of such debt security to such holder:

increased by any amounts includible in income by the holder as original issue discount (OID) and market discount (each as described below); and

reduced by any amortized premium and any payments other than payments of qualified stated interest (each as described below) made on such debt security.

In the case of a foreign currency debt security, the cost of such debt security to a United States Holder will generally be the U.S. dollar value of the foreign currency purchase price on the date of purchase calculated at the spot rate of exchange on that date. In the case of a foreign currency debt security that is traded on an established securities market, a United States Holder generally should determine the U.S. dollar value of the cost of such debt security by translating the amount paid in foreign currency into its U.S. dollar value at the spot rate of exchange (i) on the settlement date of the purchase in the case of a United States Holder using the cash method of tax accounting or (ii) on the trade date, in the case of a United States Holder using the accrual method of tax accounting, unless such holder elects to use the spot

rate applicable to cash method United States Holders. The amount of any subsequent adjustments to a United States Holder's tax basis in a foreign currency debt security in respect of OID, market discount and premium will be determined in the manner described under Original Issue Discount, Market Discount and Debt Securities Purchased at a Premium below. The conversion of U.S. dollars to another specified currency and the immediate use of such specified currency to purchase a foreign currency debt security generally will not result in any exchange gain or loss for a United States Holder as a result of the conversion or purchase.

Table of Contents

Upon the sale, exchange, retirement or other taxable disposition (collectively, a disposition) of a debt security, a United States Holder generally will recognize gain or loss equal to the difference between (i) the amount realized on the disposition, less any accrued and unpaid qualified stated interest, which will be taxable as ordinary income in the manner described above under Payments of Interest or Accruals, and (ii) the United States Holder's adjusted tax basis in such debt security. If a United States Holder receives a specified currency other than the U.S. dollar in respect of such disposition of a debt security, the amount realized will be the U.S. dollar value of the specified currency received calculated at the spot rate of exchange on the date of disposition of the debt security.

In the case of a foreign currency debt security that is traded on an established securities market, a United States Holder that receives a specified currency other than the U.S. dollar in respect of such disposition generally should determine the amount realized (as determined on the trade date) by translating that specified currency into its U.S. dollar value at the spot rate of exchange (i) on the settlement date of the disposition in the case of a United States Holder using the cash method of tax accounting or (ii) on the trade date, in the case of a United States Holder using the accrual method of tax accounting, unless such holder elects to use the spot rate applicable to cash method United States Holders. The election available to accrual basis United States Holders in respect of the purchase and sale of foreign currency debt securities traded on an established securities market, discussed above, must be applied consistently by the United States Holder to all debt instruments from year to year and can be changed only with the consent of the IRS.

Except as discussed below in connection with foreign currency gain or loss, market discount and short-term debt securities, gain or loss recognized by a United States Holder on the disposition of a debt security will generally be long term capital gain or loss if the United States Holder's holding period for the debt security exceeds one year at the time of such disposition. Net long-term capital gain recognized by an individual United States Holder generally will be subject to preferential tax. The ability of United States Holders to offset capital losses against ordinary income is limited.

Despite the foregoing, gain or loss recognized by a United States Holder on the disposition of a foreign currency debt security generally will be treated as ordinary income or loss to the extent that the gain or loss is attributable to changes in exchange rates during the period in which the holder held such debt security. This foreign currency gain or loss will not be treated as an adjustment to interest income that a United States Holder receives on the debt security.

Transactions in Foreign Currency

Foreign currency received as interest on, or on a disposition of, a debt security will have a tax basis equal to its U.S. dollar value at the time such interest is received or at the time such proceeds are received. The amount of gain or loss recognized on a sale or other disposition of such foreign currency will be equal to the difference between (i) the amount of U.S. dollars, or the fair market value in U.S. dollars of the other property received in such sale or other disposition, and (ii) the United States Holder's tax basis in such foreign currency.

A United States Holder that purchases a debt security with previously owned foreign currency will generally recognize gain or loss in an amount equal to the difference, if any, between such holder's tax basis in such foreign currency and the U.S. dollar fair market value of such debt security on the date of purchase. Any such gain or loss generally will be ordinary income or loss and will not be treated as interest income or expense. The conversion of U.S. dollars to foreign currency and the immediate use of such currency to purchase a debt security generally will not result in any exchange gain or loss for a United States Holder.

Original Issue Discount

In General. Debt securities with a term greater than one year may be issued with original issue discount (**OID**) for United States federal income tax purposes. Such debt securities are called **OID** debt securities in this

Table of Contents

prospectus and will generally be subject to special tax accounting rules. United States Holders generally must accrue OID in gross income over the term of the OID debt securities on a constant yield to maturity basis, regardless of their regular method of tax accounting or when they receive cash attributable to that income. As a result, United States Holders generally will recognize taxable income in respect of an OID debt security in advance of the receipt of cash attributable to such income.

OID generally will arise if the stated redemption price at maturity of the debt security exceeds its issue price by at least a de minimis amount of 0.25% of the debt security's stated redemption price at maturity multiplied by the number of complete years to maturity. OID may also arise if a debt security has particular interest payment characteristics, such as interest holidays, interest payable in additional securities or stepped interest. For this purpose, the issue price of a debt security is the first price at which a substantial amount of debt securities is sold for cash, other than to bond houses, brokers or similar persons or organizations acting in the capacity of underwriters, placement agents or wholesalers. The stated redemption price at maturity of a debt security is the sum of all payments due under the debt security, other than payments of qualified stated interest. The term qualified stated interest generally means stated interest that is unconditionally payable in cash or property, other than debt instruments of the issuer, at least annually during the entire term of the OID debt security at a single fixed rate of interest or, under particular conditions, based on one or more interest indices.

For each taxable year of a United States Holder, the amount of OID that must be included in gross income in respect of an OID debt security will be the sum of the daily portions of OID for each day during such taxable year or any portion of such taxable year in which such a United States Holder held the OID debt security. Such daily portions are determined by allocating to each day in an accrual period a pro rata portion of the OID allocable to that accrual period. Accrual periods may be of any length and may vary in length over the term of an OID debt security. However, accrual periods may not be longer than one year and each scheduled payment of principal or interest must occur on the first day or the final day of a period.

The amount of OID allocable to any accrual period generally will equal (i) the product of the OID debt security's adjusted issue price at the beginning of such accrual period multiplied by its yield to maturity (as adjusted to take into account the length of such accrual period), less (ii) the amount, if any, of qualified stated interest allocable to that accrual period. The adjusted issue price of an OID debt security at the beginning of any accrual period will generally equal the issue price of the OID debt security, as defined above, including any accrued interest (i) increased by previously accrued OID from all prior accrual periods, and (ii) reduced by all payments made on such debt security in all prior accrual periods, other than payments of qualified stated interest, on or before the first day of the accrual period. The yield to maturity of an OID debt security is the discount rate (appropriately adjusted to reflect the length of accrual periods) that causes the sum of the present values on the issue date of all payments on the OID debt security to equal the issue price. As a result of this constant-yield method of including OID income, the amounts a United States Holder will be required to include in gross income if such holder invests in an OID debt security denominated in U.S. dollars generally will be lesser in the early years and greater in the later years than amounts that would be includible on a straight-line basis. In the case of an OID debt security that is a floating rate debt security, both the yield to maturity and the qualified stated interest will be determined for these purposes as though the OID debt security will bear interest in all periods at a fixed rate generally equal to the value, as of the issue date, of the floating interest rate on the OID debt security or, in the case of some floating rate debt securities, the rate that reflects the yield that is reasonably expected for the OID debt security. (Additional rules may apply if interest on a floating rate debt security is based on more than one interest index.)

Foreign Currency Debt Securities. In the case of an OID debt security that is also a foreign currency debt security, a United States Holder should determine the U.S. dollar amount includible in income as OID for each accrual period by

calculating the amount of OID allocable to each accrual period in the specified currency using the constant-yield method described above; and

Table of Contents

translating the amount of the specified currency so derived at the average exchange rate in effect during that accrual period (or, with respect to an interest accrual period that spans more than one taxable year, at the average exchange rate for each partial period), or, at the United States Holder's election (as described above under "Payments of Interest and Accruals"), at the spot rate of exchange on (i) the last day of the accrual period, or the last day of the taxable year within such accrual period if the accrual period spans more than one taxable year, or (ii) on the date of receipt, if such date is within five business days of the last day of the accrual period.

All payments on an OID debt security, other than payments of qualified stated interest, will generally be viewed first as payments of previously accrued OID, to the extent thereof, with payments attributed first to the earliest accrued OID, and then as payments of principal. Upon the receipt of an amount attributable to OID, whether in connection with a payment of an amount that is not qualified stated interest or the disposition of the OID debt security, a United States Holder will recognize ordinary income or loss measured by the difference between (i) the amount received and (ii) the amount accrued. The amount received will be translated into U.S. dollars at the spot rate of exchange on the date of receipt or on the date of disposition of the OID debt security. The amount accrued will be determined by using the spot rate of exchange applicable to such previous accrual.

Acquisition Premium. A United States Holder that purchases an OID debt security outside of the initial offering for an amount less than or equal to the remaining redemption amount or in the initial offering at a price other than the debt security's issue price will generally be required to include in gross income the daily portions of the OID, calculated as described above. However, a United States Holder that acquires an OID debt security at a price in excess of the OID debt security's adjusted issue price but less than or equal to its remaining redemption amount generally is permitted to reduce the daily portions of OID by a fraction to reflect premium paid over the adjusted issue price. The numerator of such fraction is the excess of the United States Holder's adjusted tax basis in the OID debt security immediately after its purchase over the OID debt security's adjusted issue price. The denominator of such fraction is the excess of the remaining redemption amount over the OID debt security's adjusted issue price. For purposes of this prospectus, remaining redemption amount means the sum of all amounts payable on an OID debt security after the purchase date other than payments of qualified stated interest.

Floating Rate Debt Securities. Floating rate debt securities generally will be treated as variable rate debt instruments. Accordingly, the stated interest on a floating rate debt security generally will be treated as qualified stated interest and such a debt security will not have original issue discount solely as a result of the fact that it provides for interest at a variable rate. If a floating rate debt security does not qualify as a variable rate debt instrument, the debt security will be subject to special rules that govern the tax treatment of debt obligations that provide for contingent payments. We will provide a description of the tax considerations relevant to United States holders of any such debt securities in the applicable prospectus supplement.

The debt securities may have special redemption, repayment or interest rate reset features, as indicated in the related prospectus supplement. Debt securities containing such features, in particular OID debt securities, may be subject to special rules that differ from the general rules discussed above. Accordingly, purchasers of debt securities with such features should carefully examine the applicable supplement, and should consult their tax advisors relating to such debt securities.

Market Discount

If a United States Holder purchases a debt security, other than a short-term debt security (as defined below), for an amount that is less than the debt security's stated redemption price at maturity or, in the case of an OID debt security, for an amount that is less than the debt security's revised issue price, i.e., the debt security's issue price increased by the amount of accrued OID, the debt security will be considered to have market discount. The market discount rules are

subject to a de minimis rule similar to the rule relating to de minimis OID, described above (in the second paragraph under Original Issue Discount). Any gain recognized by the United States Holder on the disposition of debt securities having market discount generally will be treated as ordinary income to the extent of the market discount that accrued on the debt security while held by such United States Holder.

Table of Contents

Alternatively, the United States Holder may elect to include market discount in income currently over the life of the debt security. Such an election will apply to market discount debt securities acquired by the United States Holder on or after the first day of the first taxable year to which such election applies and is revocable only with the consent of the IRS. Market discount will accrue on a straight-line basis unless the United States Holder elects to accrue the market discount on a constant-yield method. Such an election will apply to the debt security to which it is made and is irrevocable. Unless the United States Holder elects to include market discount in income on a current basis, as described above, the United States Holder could be required to defer the deduction of a portion of the interest paid on any indebtedness incurred or maintained to purchase or carry the debt security.

Market discount on a foreign currency debt security will be accrued by a United States Holder in the specified currency. The amount includible in income by a United States Holder in respect of such accrued market discount will be the U.S. dollar value of the amount accrued. This is generally calculated at the spot rate of exchange on the date that the debt security is disposed of by the United States Holder. Any accrued market discount on a foreign currency debt security that is currently includible in income will be translated into U.S. dollars at the average exchange rate for the accrual period or portion of such accrual period within the United States Holder's taxable year.

Short-Term Debt Securities

The rules set forth above also will generally apply to debt securities having maturities of one year or less from the date of issuance. Those debt securities are called short-term debt securities in this prospectus. Modifications apply to the general rules discussed above.

First, none of the interest on a short-term debt security is treated as qualified stated interest but instead is treated as part of the short-term debt security's stated redemption price at maturity, thereby giving rise to OID. Thus, all short-term debt securities will be OID debt securities. OID will be treated as accruing on a short-term debt security ratably, or at the election of a United States Holder, under a constant yield method.

Second, a United States Holder of a short-term debt security that uses the cash method of tax accounting and does not identify the short-term debt security as part of a hedging transaction will generally not be required to include OID in respect of the short-term debt security in income on a current basis. Such a United States Holder may not be allowed to deduct all of the interest paid or accrued on any indebtedness incurred or maintained to purchase or carry such debt security until the maturity of the debt security or its earlier disposition in a taxable transaction. In addition, such a United States Holder will be required to treat any gain realized on a disposition of the debt security as ordinary income to the extent such gain does not exceed the holder's accrued OID on the debt security, and short-term capital gain to the extent the gain exceeds accrued OID. Notwithstanding the foregoing, a United States Holder of a short-term debt security using the cash method of tax accounting may elect to accrue OID into income on a current basis. In such case, the limitation on the deductibility of interest described above will not apply. A United States Holder using the accrual method of tax accounting and some cash method holders (including banks, securities dealers, regulated investment companies and certain trust funds) generally will be required to include OID on a short-term debt security in income on a current basis. OID will be treated as accruing for these purposes on a pro rata basis or, at the election of the holder, on a constant-yield basis based on daily compounding.

Third, any United States Holder of a short-term debt security, whether using the cash or accrual method of tax accounting, can elect to accrue the acquisition discount, if any, on the debt security on a current basis. If such an election is made, the OID rules will not apply to the debt security. Acquisition discount is the excess of the debt security's stated redemption price at maturity over the holder's purchase price for the debt security. Acquisition discount will be treated as accruing ratably or, at the election of the United States Holder, under a constant-yield method based on daily compounding. If a United States Holder elects to accrue acquisition discount, the OID rules

will not apply.

Table of Contents

As described above, the debt securities may have special redemption features. These features may affect the determination of whether a debt security has a maturity of not more than one year and thus is a short-term debt security. Purchasers of debt securities with such features should carefully examine the applicable supplement, and should consult their tax advisors in relation to such features.

Debt Securities Purchased at a Premium

A United States Holder that purchases a debt security for an amount in excess of the remaining redemption amount will be considered to have purchased the debt security at a premium and the OID rules will not apply to such holder. Such holder may elect to amortize such premium, as an offset to interest income, using a constant-yield method, over the remaining term of the debt security. If the debt security is redeemable prior to maturity, the amount of amortizable premium is determined with reference either to the amount payable on maturity or, if it results in a smaller premium attributable to the earlier redemption period, with reference to the amount payable on the earlier redemption date. Such election, once made, generally applies to all debt instruments held by the United States Holder at the beginning of the first taxable year to which the election applies and to all debt instruments subsequently acquired by the United States Holder. Such election may be revoked only with the consent of the IRS. A United States Holder that elects to amortize such premium must reduce its tax basis in a debt security by the amount of the premium amortized during its holding period. For a United States Holder that does not elect to amortize bond premium, the amount of such premium will be included in the United States Holder's tax basis when the debt security matures or is disposed of by the United States Holder. Therefore, a United States Holder that does not elect to amortize premium and holds the debt security to maturity will generally be required to treat the premium as capital loss when the debt security matures.

Amortizable bond premium in respect of a foreign currency debt security will be computed in the specified currency and will reduce interest income in the specified currency. At the time amortized bond premium offsets interest income, exchange gain or loss, which will be taxable as ordinary income or loss, will be realized on the amortized bond premium on such debt security based on the difference between (i) the spot rate of exchange on the date or dates such premium is recovered through interest payments on the debt security and (ii) the spot rate of exchange on the date on which the United States Holder acquired the debt security. See **Original Issue Discount** **Acquisition Premium** above for a discussion of the treatment of a debt security purchased for an amount less than or equal to the remaining redemption amount but in excess of the debt security's adjusted issue price.

Information Reporting and Backup Withholding

Information returns may be required to be filed with the IRS relating to payments made to particular United States Holders of debt securities. In addition, United States Holders may be subject to a backup withholding tax on such payments if they do not provide their taxpayer identification numbers to the paying agent in the manner required, fail to certify that they are not subject to backup withholding tax, or otherwise fail to comply with applicable backup withholding tax rules. United States Holders may also be subject to information reporting and backup withholding tax with respect to the proceeds from a disposition of the debt securities. Any amounts withheld under the backup withholding rules will be allowed as a credit against the United States Holder's United States federal income tax liability provided the required information is timely furnished to the IRS.

Non-United States Holders

Under current United States federal income tax law:

withholding of United States federal income tax will not apply to a payment on a debt security to a Non-United States Holder, provided that,

- (1) the holder does not actually or constructively own 10% or more of the total combined voting power of all classes of our stock entitled to vote and is not a controlled foreign corporation related to us (actually or constructively) through stock ownership;

Table of Contents

- (2) the beneficial owner provides a statement (generally, on an IRS Form W-8BEN or W-8BEN-E, or other applicable W-8) signed under penalties of perjury that includes its name and address and certifies that it is a Non-United States Holder in compliance with applicable requirements; and
- (3) neither we nor our paying agent has actual knowledge or reason to know that the beneficial owner of the debt security is a United States Holder.

withholding of United States federal income tax will generally not apply to any gain realized on the disposition of a debt security.

Notwithstanding the foregoing, a Non-United States Holder may be subject to a 30% U.S. withholding tax under the Foreign Account Tax Compliance Act (FATCA) with respect to payments of interest (and payments of principal made after December 31, 2018) on a debt security unless (x) the Non-United States Holder (or any foreign intermediary through which it holds the debt security) is not a foreign financial institution (as defined below), the Non-United States Holder (or any such foreign intermediary through which it holds the debt security) has provided any required information with respect to the Non-United States Holder's direct and indirect U.S. owners, if any; and (y) if the Non-United States Holder (or any intermediary through which it holds the debt security) is a foreign financial institution (as defined under FATCA), the Non-United States Holder (or any such foreign intermediary through which it holds the debt security) is FATCA compliant, as described below.

Any gain realized on the disposition of a debt security generally will not be subject to United States federal income tax unless the Non-United States Holder is an individual who is present in the United States for 183 days or more in the taxable year of the disposition and certain other conditions are met. However, the gross proceeds from a sale, exchange, redemption or other taxable disposition of a debt security effected after December 31, 2018 may be subject to a 30% U.S. withholding tax under FATCA unless (x) the Non-United States Holder (or any foreign intermediary through which it holds the debt security) is not a foreign financial institution (as defined under FATCA), the Non-United States Holder (or any such foreign intermediary through which it holds the debt security) has provided any required information with respect to its direct and indirect U.S. owners, if any; and (y) if the Non-United States Holder (or any intermediary through which it holds the debt security) is a foreign financial institution, such Non-United States Holder (or any such foreign intermediary through which it holds the note) is FATCA compliant, as described below.

A foreign financial institution will be FATCA compliant if it (x) has entered into an agreement with the U.S. government, pursuant to which it agrees, among other responsibilities, to collect and provide to the U.S. tax authorities information about its direct and indirect U.S. accountholders and investors (to the extent that an applicable intergovernmental agreement to implement FATCA (IGA) has not waived the requirement to enter into such an agreement); (y) has complied with the terms of an applicable IGA and has registered its status as compliant with such IGA with the U.S. government; or (z) otherwise has established an exemption.

In general, backup withholding and information reporting will not apply to a payment of interest on a debt security to a Non-United States Holder, or to proceeds from the disposition of a debt security by a Non-United States Holder, in each case, if the holder certifies under penalties of perjury that it is a Non-United States Holder and neither we nor our paying agent has actual knowledge, or reason to know, to the contrary. Any amounts withheld under the backup withholding rules will be refunded or credited against the Non-United States Holder's United States federal income tax liability provided the required information is timely furnished to the IRS. In certain circumstances, if a debt security is not held through a qualified intermediary, the amount of payments made on such debt security, the name and address of the beneficial owner and the amount, if any, of tax withheld may be reported to the IRS.

Table of Contents

PLAN OF DISTRIBUTION

We may sell the securities from time to time in one or more transactions:

through underwriters, dealers or agents;

directly to purchasers; or

through a combination of any of these methods of sale.

We may directly solicit offers to purchase securities or agents may be designated to solicit offers. We will, in the prospectus supplement relating to an offering, name any agent that could be viewed as an underwriter under the Securities Act and describe any commissions that we must pay. Any such agent will be acting on a best efforts basis for the period of its appointment or, if indicated in the applicable prospectus supplement, on a firm commitment basis. This prospectus may be used in connection with any offering of our securities through any of these methods or other methods described in the applicable prospectus supplement.

The distribution of the securities may be effected from time to time in one or more transactions:

at a fixed price or prices which may be changed from time to time;

at market prices prevailing at the time of sale;

at prices related to such prevailing market prices; or

at negotiated prices.

Each prospectus supplement will describe the method of distribution of the securities and any applicable restrictions.

The prospectus supplement with respect to the securities of a particular series will describe the terms of the offering of the securities, including the following:

the name of any agent or underwriters;

the public offering or purchase price;

any discounts and commissions to be allowed or paid to the agent or underwriters;

all other items constituting underwriting compensation;

any discounts and commissions to be allowed or paid to dealers; and

any exchanges on which the securities will be listed.

If any underwriters or agents are utilized in the sale of the securities in respect of which this prospectus is delivered, we will enter into an underwriting agreement or other agreement with them at the time of sale to them, and we will set forth in the prospectus supplement relating to the offering the names of the underwriters or agents and the terms of the related agreement with them.

If a dealer is utilized in the sale of the securities in respect of which the prospectus is delivered, we will sell the securities to the dealer, as principal. The dealer may then resell the securities to the public at varying prices to be determined by the dealer at the time of resale.

Agents, underwriters and dealers participating in a sale of the securities may be deemed to be underwriters as defined in the Securities Act, and any discounts and commissions received by them and any profit realized by them on resale of the debt securities may be deemed to be underwriting discounts and commissions, under the Securities Act. Agents, underwriters, dealers and other persons may be entitled under agreements which they may enter into with us to indemnification by us against certain civil liabilities, including liabilities under the Securities Act.

Table of Contents

If so indicated in the applicable prospectus supplement, we will authorize underwriters or other persons acting as our agents to solicit offers by certain institutions to purchase securities from us pursuant to delayed delivery contracts providing for payment and delivery on the date stated in the prospectus supplement. Each contract will be for an amount not less than, and the aggregate amount of securities sold pursuant to such contracts shall not be less nor more than, the respective amounts stated in the prospectus supplement. Institutions with whom the contracts, when authorized, may be made include commercial and savings banks, insurance companies, pension funds, investment companies, educational and charitable institutions and other institutions, but shall in all cases be subject to our approval. Delayed delivery contracts will not be subject to any conditions except that:

the purchase by an institution of the securities covered under that contract may not at the time of delivery be prohibited under the laws of the jurisdiction to which that institution is subject; and

if the securities are also being sold to underwriters acting as principals for their own account, the underwriters will have purchased such securities not sold for delayed delivery. The underwriters and other persons acting as our agents will not have any responsibility in respect of the validity or performance of delayed delivery contracts.

Certain agents, underwriters and dealers, and their associates and affiliates may be customers of, have borrowing relationships with, engage in other transactions with, and/or perform services, including investment banking services, for us or one or more of our respective affiliates in the ordinary course of business.

In order to facilitate the offering of the securities, any underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of the securities or any other securities the prices of which may be used to determine payments on such securities. Specifically, any underwriters may overallocate in connection with the offering, creating a short position for their own accounts. In addition, to cover overallocations or to stabilize the price of the securities or of any such other securities, the underwriters may bid for, and purchase, the securities or any such other securities in the open market. Finally, in any offering of the securities through a syndicate of underwriters, the underwriting syndicate may reclaim selling concessions allowed to an underwriter or a dealer for distributing the securities in the offering if the syndicate repurchases previously distributed securities in transactions to cover syndicate short positions, in stabilization transactions or otherwise. Any of these activities may stabilize or maintain the market price of the securities above independent market levels. Any such underwriters are not required to engage in these activities and may end any of these activities at any time.

We may enter into derivative transactions with third parties, or sell securities not covered by this prospectus to third parties in privately negotiated transactions. If the applicable prospectus supplement so indicates, in connection with those derivatives, the third parties may sell securities covered by this prospectus and the applicable prospectus supplement, including in short sale transactions. If so, the third party may use securities pledged by us or borrowed from us or others to settle those sales or to close out any related open borrowings of stock and may use securities received from us in settlement of those derivatives to close out any related open borrowings of stock. The third party in such sale transactions may be an underwriter and, if not identified in this prospectus, will be identified in the applicable prospectus supplement.

Under Rule 15c6-1 of the Exchange Act, trades in the secondary market generally are required to settle in two business days, unless the parties to any such trade expressly agree otherwise. The applicable prospectus supplement may provide that the original issue date for your securities may be more than two scheduled business days after the trade date for your securities. Accordingly, in such a case, if you wish to trade securities on any date prior to the

second business day before the original issue date for your securities, you will be required, by virtue of the fact that your securities initially are expected to settle in more than two scheduled business days after the trade date for your securities, to make alternative settlement arrangements to prevent a failed settlement.

Table of Contents

The securities may be new issues of securities and may have no established trading market. The securities may or may not be listed on a national securities exchange. Any underwriters that purchase the securities for public offering and sale may make a market in such securities, but such underwriters will not be obligated to do so and may discontinue any market making at any time without notice. We can make no assurance as to the liquidity of or the existence of trading markets for any of the securities.

Table of Contents

LEGAL MATTERS

Unless the applicable prospectus supplement indicates otherwise, the validity of the securities in respect of which this prospectus is being delivered will be passed upon by Cleary Gottlieb Steen & Hamilton LLP, New York, New York.

EXPERTS

The consolidated financial statements of Applied Materials, Inc. and its subsidiaries as of October 29, 2017 and October 30, 2016, and for each of the years in the three-year period ended October 29, 2017, and management's assessment of the effectiveness of internal control over financial reporting as of October 29, 2017 have been incorporated by reference herein and in the registration statement in reliance on the reports of KPMG LLP, an independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing.

Table of Contents

APPLIED MATERIALS, INC.

DEBT SECURITIES

PROSPECTUS

June 12, 2018

Table of Contents**PART II. INFORMATION NOT REQUIRED IN THE PROSPECTUS****Item 14. Other Expenses of Issuance and Distribution**

Set forth below is an estimate (except in the case of the registration fee) of the amount of fees and expenses to be incurred in connection with the issuance and distribution of the offered securities, other than underwriting discounts and commissions.

SEC registration fee	\$ *
Printing and engraving	**
Accounting services	**
Legal fees of registrant's counsel	**
Trustee's fees and expenses	**
Rating agency fees	**
Miscellaneous	**
Total	\$ **

* Deferred in reliance upon Rules 456(b) and 457(r).

** These fees are calculated based on the securities offered and the number of issuances and accordingly cannot be estimated at this time.

Item 15. Indemnification of Directors and Officers

The following summary is qualified in its entirety by reference to the complete Delaware General Corporation Law (DGCL) and the registrant's certificate of incorporation as amended to date (Charter).

The registrant's Charter provides that each person who was or is made a party or is threatened to be made a party to or is involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that he or she is or was a director or officer of the registrant is indemnified and held harmless by the registrant to the fullest extent authorized by the DGCL against all expense, liability and loss (including attorneys' fees, judgments, fines and amounts paid or to be paid in settlement) reasonably incurred or suffered by such person in connection with such proceeding, and such indemnification will continue as to a person who has ceased to be a director, officer, employee or agent and will inure to the benefit of his or her heirs, executors and administrators.

Under Section 145 of the DGCL, a Delaware corporation must indemnify its present or former directors and officers against expenses (including attorney's fees) actually and reasonably incurred to the extent that the officer or director has been successful on the merits or otherwise in defense of any action, suit or proceeding brought against him or her by reason of the fact that he or she is or was a director or officer of the corporation. The DGCL generally permits a Delaware corporation to indemnify directors and officers against expenses, judgments, fines and amounts paid in settlement of any action or suit for actions taken in good faith and in a manner they reasonably believed to be in, or not opposed to, the best interests of the corporation and, with respect to any criminal action, which they had no reasonable cause to believe was unlawful.

The registrant is governed by the provisions of the DGCL permitting the registrant to purchase director's and officer's insurance to protect itself and any director, officer, employee or agent of the registrant. The registrant has an insurance policy which insures the directors and officers of the registrant and its subsidiaries against certain liabilities which might be incurred in connection with the performance of their duties. The registrant also has indemnification agreements with its directors and officers that provide for the maximum indemnification allowed by law.

II-1

Table of Contents

Item 16. Exhibits

Exhibit

Number	Description of Exhibit
1.1	Form of Underwriting Agreement.*
3.1	<u>Certificate of Incorporation of Applied Materials, Inc., as amended and restated through March 10, 2009, incorporated by reference to Applied s Form 10-Q for the quarter ended April 26, 2009 (file no. 000-06920) filed June 3, 2009.</u>
3.2	<u>Amended and Restated Bylaws of Applied Materials, Inc., as amended as of December 8, 2015, incorporated by reference to Applied s Form 8-K (file no. 000-06920) filed December 11, 2015.</u>
4.1	<u>Indenture dated June 8, 2011, by and between Applied Materials, Inc. and U.S. Bank National Association, incorporated by reference to Applied s Form 8-K (file no. 000-06920) filed June 10, 2011.</u>
4.2	<u>First Supplemental Indenture dated June 8, 2011, by and between Applied Materials, Inc. and U.S. Bank National Association, incorporated by reference to Applied s Form 8-K (file no. 000-06920) filed June 10, 2011.</u>
4.3	<u>Second Supplemental Indenture dated September 24, 2015, by and between Applied Materials, Inc. and U.S. Bank National Association, incorporated by reference to Applied s Form 8-K (file no. 000-06920) filed September 24, 2015.</u>
4.4	<u>Third Supplemental Indenture dated March 31, 2017, by and between Applied Materials, Inc. and U.S. Bank National Association, incorporated by reference to Applied s Form 8-K (file no. 000-06920) filed March 31, 2017.</u>
4.5	<u>Form of Subordinated Indenture.</u>
4.6	Form of Senior Debt Security.*
4.7	Form of Subordinated Debt Security.*
5.1	<u>Opinion of Cleary Gottlieb Steen & Hamilton LLP.</u>
12.1	<u>Computation of ratio of earnings to fixed charges.</u>
23.1	<u>Consent of KPMG LLP, independent registered public accounting firm.</u>
23.2	<u>Consent of Cleary Gottlieb Steen & Hamilton LLP (included in the opinion filed as Exhibit 5.1 to this registration statement).</u>
24.1	<u>Power of Attorney (included on the signature page of this Registration Statement).</u>
25.1	<u>Form T-1 Statement of Eligibility of Trustee for Senior Indenture under the Trust Indenture Act of 1939.</u>
25.2	Form T-1 Statement of Eligibility of Trustee for Subordinated Indenture under the Trust Indenture Act of 1939.**

* To be filed by amendment or by a Current Report on Form 8-K.

** To be filed pursuant to Section 305(b)(2) of the Trust Indenture Act of 1939.

Item 17. Undertakings

The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) to include any prospectus required by Section 10(a)(3) of the Securities Act of 1933, as amended (the Securities Act of 1933);

II-2

Table of Contents

(ii) to reflect in the prospectus any facts or events arising after the effective date of this registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in this registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the Calculation of Registration Fee table in the effective registration statement; and

(iii) to include any material information with respect to the plan of distribution not previously disclosed in this registration statement or any material change to such information in this registration statement;

provided, however, that paragraphs (1)(i), (1)(ii) and (1)(iii) do not apply if the registration statement is on Form S-3 and the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by a Registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934, as amended (the Exchange Act), that are incorporated by reference in this registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of this registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(i) each prospectus filed by a Registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(ii) each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii) or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof. *Provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

(5) That, for the purpose of determining liability of a Registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities, the undersigned Registrant undertakes that in a primary offering of securities

of such undersigned Registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such

II-3

Table of Contents

purchaser by means of any of the following communications, such undersigned Registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) any preliminary prospectus or prospectus of such undersigned Registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) any free writing prospectus relating to the offering prepared by or on behalf of such undersigned Registrant or used or referred to by such undersigned Registrant;

(iii) the portion of any other free writing prospectus relating to the offering containing material information about such undersigned Registrant or its securities provided by or on behalf of such undersigned Registrant; and

(iv) any other communication that is an offer in the offering made by such undersigned Registrant to the purchaser.

(6) That, for purposes of determining any liability under the Securities Act of 1933, each filing of the Registrant's annual report pursuant to Section 13(a) or 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(7) To file an application for the purpose of determining the eligibility of the trustee to act under subsection (a) of Section 310 of the Trust Indenture Act in accordance with the rules and regulations prescribed by the Commission under Section 305(b)(2) of the Trust Indenture Act.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of any Registrant pursuant to the indemnification provisions described herein, or otherwise, each Registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act of 1933 and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by a Registrant of expenses incurred or paid by a director, officer or controlling person of such Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, such Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933 and will be governed by the final adjudication of such issue.

Table of Contents

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Santa Clara, State of California, on June 12, 2018.

APPLIED MATERIALS, INC.

By: /s/ GARY E. DICKERSON
Gary E. Dickerson

President

Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS:

Each of the undersigned directors or officers of Applied Materials, Inc., a Delaware corporation (the Company), hereby constitutes and appoints Gary E. Dickerson, Daniel J. Durn and Thomas F. Larkins, and each of them with power to act alone, his or her true and lawful attorney-in-fact, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to execute a Registration Statement on Form S-3 for the registration of an indeterminate amount of securities of the Company under the Securities Act of 1933, as amended (the Securities Act), and any and all amendments (including post-effective amendments) to this Registration Statement and any Registration Statement relating to any offering made pursuant to this Registration Statement that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act, and to file the same, with all exhibits thereto, and all documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact full power and authority to do and perform each and every act and thing necessary or desirable to be done in and about the premises, as fully to all intents and purposes, as he or she might or could do in person, hereby ratifying and confirming all that said attorney-in-fact or his substitute or substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the date indicated.

Signature	Title	Date
/s/ GARY E. DICKERSON Gary E. Dickerson	President, Chief Executive Officer and Director (Principal Executive Officer)	June 12, 2018
/s/ DANIEL J. DURN		June 12, 2018

Daniel J. Durn	Senior Vice President, Chief Financial Officer (Principal Financial Officer)	
/s/ CHARLES W. READ	Corporate Vice President, Corporate Controller and Chief Accounting Officer (Principal Accounting Officer)	June 12, 2018
Charles W. Read		
/s/ THOMAS J. IANNOTTI	Chairman of the Board	June 12, 2018
Thomas J. Iannotti		

II-5

Table of Contents

Signature	Title	Date
/s/ JUDY BRUNER	Director	June 12, 2018
Judy Bruner		
/s/ XUN CHEN	Director	June 12, 2018
Xun Chen		
/s/ AART J. DE GEUS	Director	June 12, 2018
Aart J. de Geus		
/s/ STEPHEN R. FORREST	Director	June 12, 2018
Stephen R. Forrest		
/s/ ALEXANDER A. KARSNER	Director	June 12, 2018
Alexander A. Karsner		
/s/ ADRIANNA C. MA	Director	June 12, 2018
Adrianna C. Ma		
/s/ SCOTT A. MCGREGOR	Director	June 12, 2018
Scott A. McGregor		
/s/ DENNIS D. POWELL	Director	June 12, 2018
Dennis D. Powell		