

THERMO FISHER SCIENTIFIC INC.
Form 424B5
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The information in this preliminary prospectus supplement is not complete and may be changed. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell these securities and are not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

Subject to Completion, dated September 14, 2016

PROSPECTUS SUPPLEMENT

(To prospectus dated August 1, 2016)

\$

Thermo Fisher Scientific Inc.

% Senior Notes due

We are offering \$ aggregate principal amount of % Senior Notes due (the *notes*). We will pay interest on the notes on and of each year, beginning on , 2017. The notes will mature on , .

We may redeem some or all of the notes at any time at the applicable redemption prices described in this prospectus supplement. If a Change of Control Triggering Event as described in this prospectus supplement occurs, we may be required to offer to purchase the notes from the holders. There is no sinking fund for the notes.

The notes will be our general unsecured senior obligations and rank equally with our existing and future unsecured senior indebtedness.

Investing in the notes involves risks. See Risk Factors beginning on page S-8.

| | Per Note | Total |
|----------------------------------|-----------------|--------------|
| Public offering price | % | \$ |
| Underwriting discount | % | \$ |
| Proceeds, before expenses, to us | % | \$ |

Interest on the notes will accrue from _____, 2016.

Neither the Securities and Exchange Commission (SEC) nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement or the accompanying prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The notes will be ready for delivery in book-entry form only through the facilities of The Depository Trust Company (DTC) for the accounts of its participants, including Euroclear Bank S.A./N.V., as operator of the Euroclear System, and Clearstream Banking, *société anonyme*, on or about _____, 2016.

Joint Book-Running Managers

J.P. Morgan

Citigroup

Deutsche Bank Securities

The date of this prospectus supplement is

, 2016

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ABOUT THIS PROSPECTUS SUPPLEMENT

This document consists of two parts. The first part is the prospectus supplement, which describes the specific terms of this offering. The second part is the prospectus, which describes more general information, some of which may not apply to this offering. You should read this prospectus supplement, any related free writing prospectus that we provide to you and the accompanying prospectus, together with the additional information described under the heading "Where You Can Find More Information and Incorporation By Reference" elsewhere in this prospectus supplement.

In this prospectus supplement, except as otherwise indicated or unless the context otherwise requires, Thermo Fisher, the company, we, us and our refer to Thermo Fisher Scientific Inc. and its consolidated subsidiaries. If the information set forth in this prospectus supplement differs in any way from the information set forth in the accompanying prospectus, you should rely on the information set forth in this prospectus supplement.

Currency amounts in this prospectus supplement are stated in U.S. dollars.

This prospectus supplement, any related free writing prospectus that we provide to you and the accompanying prospectus may be used only for the purpose for which they have been prepared. No one is authorized to give information other than that contained in or incorporated by reference into this prospectus supplement, any related free writing prospectus that we provide to you and the accompanying prospectus. We have not, and the underwriters have not, authorized any other person to provide you with different information. Neither we nor any of the underwriters or their affiliates take any responsibility for, nor can we or any of the underwriters or their affiliates provide any assurance as to the reliability of, any information that others may give you.

You should assume that the information appearing in this prospectus supplement, any related free writing prospectus that we provide to you, the accompanying prospectus and the documents incorporated by reference is accurate only as of their respective dates. Our business, financial condition, results of operations and prospects may have changed since those dates. Neither this prospectus supplement, any related free writing prospectus that we provide to you nor the accompanying prospectus constitutes an offer, or a solicitation on our behalf or on behalf of the underwriters, to subscribe for and purchase any of the securities and may not be used for or in connection with an offer or solicitation by anyone in any jurisdiction in which such an offer or solicitation is not authorized or to any person to whom it is unlawful to make such an offer or solicitation.

SPECIAL NOTE ABOUT FORWARD-LOOKING STATEMENTS

This prospectus supplement contains or incorporates by reference certain statements that are, or may be deemed to be, forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the *Securities Act*), and Section 21E of the Securities Exchange Act of 1934, as amended (the *Exchange Act*). Any statements contained in or incorporated by reference into this prospectus supplement or the accompanying prospectus that are not statements of historical fact may be deemed to be forward-looking statements. Without limiting the foregoing, the words believes, anticipates, plans, expects, seeks, estimates, could, would, intends and expressions are intended to identify forward-looking statements. While we may elect to update forward-looking statements in the future, we specifically disclaim any obligation to do so even if our estimates and/or expectations change, and you should not rely on those forward-looking statements as representing our views as of any date subsequent to the date of this prospectus supplement.

A number of important factors could cause our results to differ materially from those indicated by such forward-looking statements, including those detailed under the heading Risk Factors below and in the documents incorporated herein by reference.

SUMMARY

The following summary highlights information contained elsewhere in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein or therein. It may not contain all of the information that you should consider before investing in the notes. For a more complete discussion of the information you should consider before investing in the notes, you should carefully read this entire prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein or therein.

Our Company

Thermo Fisher is the world leader in serving science. Our mission is to enable our customers to make the world healthier, cleaner and safer. We help our customers accelerate life sciences research, solve complex analytical challenges, improve patient diagnostics and increase laboratory productivity.

Thermo Fisher had over 50,000 employees and served more than 400,000 customers within pharmaceutical and biotech companies, hospitals and clinical diagnostic labs, universities, research institutions and government agencies, as well as environmental, industrial quality and process control settings, as of July 2, 2016.

We serve our customers through our premier brands, Thermo Scientific, Applied Biosystems, Invitrogen, Fisher Scientific and Unity Lab Services:

The Thermo Scientific brand offers customers in research, diagnostics, industrial, and applied markets a complete range of high-end analytical instruments as well as laboratory equipment, software, services, consumables and reagents. Our portfolio of products includes innovative technologies for mass spectrometry, chromatography, elemental analysis, molecular spectroscopy, sample preparation, informatics, chemical research and analysis, cell culture, bioprocess production, cellular, protein and molecular biology research, allergy testing, drugs-of-abuse testing, therapeutic drug monitoring testing, microbiology, and anatomical pathology, as well as environmental monitoring and process control.

The Applied Biosystems brand offers customers in research, clinical and applied markets integrated instrument systems, reagents, and software for genetic analysis. Our portfolio includes innovative technologies for genetic sequencing and real-time, digital and end point polymerase chain reaction, that are used to determine meaningful genetic information in applications such as cancer diagnostics, human identification testing, and animal health, as well as inherited and infectious disease.

The Invitrogen brand offers life science customers a broad range of consumables and instruments that accelerate research and ensure consistency of results. Our portfolio of products includes innovative solutions for cellular analysis and biology, flow cytometry, cell culture, protein expression, synthetic biology, molecular biology and protein biology.

Fisher Scientific is our channels brand, offering customers a complete portfolio of laboratory equipment, chemicals, supplies and services used in scientific research, healthcare, safety, and education markets. These products are offered through an extensive network of direct sales professionals, industry-specific catalogs, e-commerce capabilities and supply-chain management services. We also offer a range of biopharma services for clinical trials management and biospecimen storage.

Unity Lab Services is our services brand, offering a complete portfolio of services from enterprise level engagements to individual instruments and laboratory equipment, regardless of the original manufacturer. Through our network of world-class service and support personnel, we provide services that are designed to help our customers improve productivity, reduce costs, and drive decisions with better data. In addition to our premier brands, we offer a number of specialty brands that cover a range of products.

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We continuously increase our depth of capabilities in technologies, software and services, and leverage our extensive global channels to address our customers' emerging needs. Our goal is to make our customers more productive in an increasingly competitive business environment, and to allow them to solve their challenges, from complex research to improved patient care, environmental and process monitoring, and consumer safety.

Thermo Fisher is a Delaware corporation and was incorporated in 1956. The company completed its initial public offering in 1967 and was listed on the New York Stock Exchange in 1980. The company's principal executive offices are located at 168 Third Avenue, Waltham, Massachusetts 02451, and its telephone number is (781) 622-1000.

FEI Acquisition

In May 2016, we signed an agreement and plan of merger to acquire, within the Analytical Instruments segment, FEI Company, a North America-based provider of high-performance electron microscopy, for approximately \$4.2 billion in cash (the *FEI Acquisition*). The FEI Acquisition will strengthen our analytical instrument portfolio with the addition of high-end electron microscopes. Revenues of FEI were \$930 million for the year ended December 31, 2015. The transaction is expected to close by December 31, 2016, subject to the satisfaction of customary closing conditions, including applicable regulatory approvals.

We currently expect to finance the estimated \$4.2 billion purchase price for the FEI Acquisition and to pay certain associated costs with a combination of (i) all or a portion of the net proceeds from the offering of Euro Notes described below, (ii) \$2.0 billion from a 3-year unsecured term loan facility and (iii) cash on hand.

Recent Developments

On September 12, 2016, we closed our offering of \$1 billion aggregate principal amount of 0.750% Senior Notes due 2024 (the *2024 Euro Notes*) and \$600 million aggregate principal amount of 1.375% Senior Notes due 2028 (the *2028 Euro Notes*) and, together with the 2024 Euro Notes, the *Euro Notes*). We intend to use the proceeds from the issuance of the Euro Notes principally to finance a portion of the FEI Acquisition. See *FEI Acquisition* above.

Risk Factors

An investment in the notes involves risk. You should carefully consider the information set forth in the section of this prospectus supplement entitled *Risk Factors* beginning on page S-8, as well as other information included or incorporated by reference in this prospectus supplement and the accompanying prospectus, before deciding whether to invest in the notes.

The Offering

A brief description of the material terms of the offering follows. For a more complete description of the notes offered hereby, see Description of the Notes in this prospectus supplement and Description of Thermo Fisher Debt Securities in the accompanying prospectus.

| | |
|---------------|---|
| Issuer | Thermo Fisher Scientific Inc. |
| Notes Offered | \$ aggregate principal amount of % Senior Notes due . |
| Interest | <p>The notes will bear interest at the rate of % per annum.</p> <p>Interest on the notes will be paid semi-annually on each and to holders of record on the 15th calendar day, whether or not a business day, prior to the applicable interest payment date, commencing , 2017.</p> |
| Maturity | The notes will mature on , . |
| Ranking | <p>The notes will be:</p> <ul style="list-style-type: none"> general unsecured obligations of ours; effectively subordinated in right of payment to all existing and future secured indebtedness of ours to the extent of the assets securing such indebtedness; structurally subordinated to all existing and future indebtedness and other liabilities and commitments (including trade payables and lease obligations) of our subsidiaries, to the extent of the assets of such subsidiaries; equal in right of payment with all existing and future unsecured and unsubordinated indebtedness of ours; and senior in right of payment to any existing and future indebtedness of ours that is subordinated to the notes. <p>As of July 2, 2016:</p> <ul style="list-style-type: none"> we and our subsidiaries had approximately \$14.0 billion in outstanding consolidated indebtedness (excluding trade payables, intercompany liabilities and income tax-related liabilities); our subsidiaries had approximately \$1.2 billion of indebtedness (excluding trade payables, intercompany liabilities and income tax-related liabilities) to which the notes would have been structurally subordinated; Thermo Fisher Scientific Inc. had no secured indebtedness outstanding; and |

after giving effect to this offering, the offering of the Euro Notes, our offering of euro-denominated floating rate notes in August 2016 and the use of proceeds therefrom, and assuming the application of the net

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proceeds from this offering to redeem certain of our existing debt, our total consolidated indebtedness would have been approximately \$ billion, and our subsidiaries would have had approximately \$1.2 billion of indebtedness to which the notes would have been structurally subordinated.

Optional Redemption

At any time and from time to time prior to , (months prior to their maturity), we may redeem the notes, in whole or in part at our option, at a redemption price equal to the greater of (1) 100% of the principal amount of the notes to be redeemed and (2) the sum of the present values of the remaining scheduled payments of principal and interest in respect of the notes being redeemed that would be due if such notes matured on , (months prior to their maturity) but for the redemption (not including any portion of the payments of interest accrued but unpaid as of the date of redemption) discounted on a semi-annual basis (assuming a 360-day year of twelve 30-day months), at the Treasury Rate plus basis points, plus accrued and unpaid interest, if any, to, but excluding, the date of redemption. In addition, on and after , (months prior to their maturity), we may redeem the notes in whole or in part at our option, at a redemption price equal to 100% of the principal amount of the notes to be redeemed, plus accrued and unpaid interest, if any, to, but excluding, the date of redemption.

See Description of the Notes Optional Redemption.

Purchase of Notes Upon a Change of Control

Triggering Event

Upon the occurrence of a Change of Control Triggering Event (as defined herein), we will, in certain circumstances, be required to make an offer to purchase the notes at a price equal to 101% of their principal amount plus any accrued and unpaid interest, if any, to, but excluding, the date of repurchase. See Description of the Notes Repurchase Upon a Change of Control.

Use of Proceeds

We intend to use a portion of the net proceeds of this offering to redeem all of the outstanding \$900 million aggregate principal amount of our 1.30% senior notes due 2017, which mature on February 1, 2017. We intend to use the remaining net proceeds for general corporate purposes, which may include, without limitation, the repayment, redemption or refinancing of indebtedness, capital expenditures, funding of possible acquisitions, working capital, satisfaction of other obligations or the repurchase of our outstanding equity securities. See Use of Proceeds.

Additional Notes

We may from time to time, without consent of the holders of the notes, issue additional notes having the

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same terms and conditions (except for the issue date, offering price and, if applicable, the first interest payment date) as the notes being offered hereby. Additional notes issued in this manner will form a single series with the notes.

Risk Factors

An investment in the notes involves risk. You should carefully consider the information set forth in the section of this prospectus supplement entitled Risk Factors beginning on page S-8, as well as other information included or incorporated by reference in this prospectus supplement and the accompanying prospectus, before deciding whether to invest in the notes.

Trustee

The Bank of New York Mellon Trust Company, N.A.

Governing Law

The indenture and the notes will be governed by the laws of the State of New York.

Summary Consolidated Financial Data

The following table presents summary consolidated financial data as of and for the periods indicated. The statement of income data for each of the fiscal years in the three-year period ended December 31, 2015 and the balance sheet data as of December 31, 2015 and 2014 have been derived from the audited consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2015, filed with the SEC on February 25, 2016 (the *2015 Form 10-K*), which is incorporated herein by reference. The balance sheet data as of December 31, 2013 have been derived from our audited consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2014, as amended, originally filed with the SEC on February 26, 2015 and amended on March 5, 2015, which is not incorporated herein by reference. The statement of income data for each of the six-month periods ended July 2, 2016 and June 27, 2015 and the balance sheet data as of July 2, 2016 have been derived from the unaudited consolidated financial statements included in our Quarterly Report on Form 10-Q for the quarter ended July 2, 2016, filed with the SEC on August 5, 2016 (the *Second Quarter 2016 Form 10-Q*), which is incorporated herein by reference. The balance sheet data as of June 27, 2015 have been derived from our unaudited consolidated financial statements included in our Quarterly Report on Form 10-Q for the quarter ended June 27, 2015, filed with the SEC on July 31, 2015, which is not incorporated herein by reference. In the opinion of management, our unaudited summary consolidated financial data reflect all adjustments of a normal recurring nature necessary for a fair statement of such financial data. In the opinion of management, our interim financial statements have been prepared on the same basis as our audited consolidated financial statements. Interim results are not necessarily indicative of results of operations for the full year. You should read the following table in conjunction with the information contained in our Management's Discussion and Analysis of Financial Condition and Results of Operations and our audited consolidated financial statements and related notes in our 2015 Form 10-K and the information contained in our Management's Discussion and Analysis of Financial Condition and Results of Operations and our unaudited consolidated financial statements and related notes in our Second Quarter 2016 Form 10-Q.

| | Six Months Ended | | Fiscal Year Ended December 31, | | |
|---|--------------------|---------------------|--------------------------------|-------------|-------------|
| | July 2, 2016(a) | June 27, 2015(b) | 2015(c) | 2014(d) | 2013(e) |
| (In millions except per share amounts) | | | | | |
| Statement of Income Data: | | | | | |
| Revenues | \$ 8,830.0 | \$ 8,189.7 | \$ 16,965.4 | \$ 16,889.6 | \$ 13,090.3 |
| Operating Income | 1,155.5 | 1,083.1 | 2,336.2 | 2,503.0 | 1,609.6 |
| Income from Continuing Operations | 919.1 | 896.7 | 1,980.3 | 1,895.5 | 1,279.1 |
| Net Income | 918.8 | 896.7 | 1,975.4 | 1,894.4 | 1,273.3 |
| Earnings per Share from Continuing Operations: | | | | | |
| Basic | 2.33 | 2.25 | 4.97 | 4.76 | 3.55 |
| Diluted | 2.31 | 2.23 | 4.93 | 4.71 | 3.50 |
| Earnings per Share: | | | | | |
| Basic | 2.33 | 2.25 | 4.96 | 4.76 | 3.53 |
| Diluted | 2.31 | 2.23 | 4.92 | 4.71 | 3.48 |

| | As of | | As of December 31, | | |
|----------------------------|--------------------|---------------------|--------------------|---------|---------|
| | July 2, 2016(a) | June 27, 2015(b) | 2015(c) | 2014(d) | 2013(e) |
| (In millions) | | | | | |
| Balance Sheet Data: | | | | | |

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| | | | | | |
|-----------------------|----------|----------|------------|------------|------------|
| Working Capital | \$ 802.8 | \$ 136.2 | \$ 1,593.9 | \$ 1,190.0 | \$ 6,754.7 |
| Total Assets | 42,253.4 | 41,774.4 | 40,889.0 | 42,852.1 | 31,863.4 |
| Long-term Obligations | 11,631.9 | 10,663.7 | 11,473.9 | 12,351.6 | 9,499.6 |
| Shareholders Equity | 21,263.9 | 20,679.8 | 21,350.2 | 20,548.1 | 16,856.1 |

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The caption restructuring and other costs/income in the notes below includes amounts charged to cost of revenues, primarily for the sale of inventories revalued at the date of the acquisition, and charges/credits to selling, general and administrative expense primarily for significant acquisition transaction costs.

- (a) Reflects \$146.7 million of pre-tax charges for restructuring and other costs and the repurchase of \$1.0 billion of our common stock.
- (b) Reflects \$64.9 million of pre-tax charges for restructuring and other costs and the repurchase of \$500 million of our common stock.
- (c) Reflects \$171 million of pre-tax charges for restructuring and other costs; after-tax loss of \$5 million related to our discontinued operations; and the repurchase of \$500 million of our common stock.
- (d) Reflects \$140 million of pre-tax income from gains on sale of businesses, net of restructuring and other costs; and after-tax loss of \$1 million related to our discontinued operations. Also reflects the acquisition of Life Technologies Corporation in February 2014.
- (e) Reflects \$180 million of pre-tax charges for restructuring and other costs; after-tax loss of \$6 million related to our discontinued operations; and the repurchase of \$90 million of our common stock. Also reflects the issuance of \$3.20 billion of long-term debt in December 2013 to fund the acquisition of Life Technologies Corporation in February 2014.

RISK FACTORS

Investing in the notes involves various risks, including the risks described below. You should carefully consider the following risks, as well as the other information contained in or incorporated by reference into this prospectus supplement and the accompanying prospectus before investing in the notes. In addition to the risks described below, our business is subject to risks that affect many other companies, such as competition, technological obsolescence, labor relations, general economic conditions, geopolitical events and international operations. Additional risks not currently known to us or that we currently believe are immaterial also may impair our business, financial condition, results of operations and cash flows.

Risks Relating to the Notes

There may not be a liquid market for the notes.

The notes are a new issue of securities with no established trading market. We have been informed by the underwriters that they intend to make a market in the notes after the offering is completed. However, the underwriters are not obligated to do so and may discontinue their market making activities at any time without notice. We cannot assure the liquidity of the trading market for the notes or that an active public market for the notes will develop. If an active public trading market for the notes does not develop, the market prices and liquidity of such notes may be adversely affected. If the notes are traded, they may trade at a discount from their initial offering price, depending on prevailing interest rates, the market for similar securities, our operating performance and financial condition, general economic conditions and other factors. Moreover, the condition of the financial markets and prevailing interest rates have fluctuated in the past and are likely to fluctuate in the future, which could have an adverse effect on the market price of the notes. As a result, there can be no assurance that an active trading market will develop for the notes. To the extent an active trading market does not develop, you may not be able to resell your notes at their fair market value or at all.

We conduct substantially all of our operations through subsidiaries.

We conduct substantially all of our operations through subsidiaries and we are dependent on distributions of funds from our subsidiaries to meet our debt service and other obligations, including the payment of principal and interest on the notes. Our subsidiaries may not generate sufficient cash from operations to enable us to make payments on our indebtedness, including the notes. The ability of our subsidiaries to make distributions to us may be restricted by, among other things, applicable state corporate laws, other laws and regulations and contractual restrictions. If we are unable to obtain funds from our subsidiaries as a result of restrictions under our other debt instruments, state law or otherwise, we may not be able to pay interest or principal on the notes when due, or to redeem the notes, and we cannot assure you that we will be able to obtain the necessary funds from other sources.

The notes will not restrict our ability to incur additional debt, to repurchase our securities or to take other actions that could negatively impact our ability to satisfy our obligations under the notes.

Neither the notes nor the indenture governing the notes will restrict our ability or the ability of our subsidiaries to incur additional debt, repurchase securities, recapitalize, or pay dividends or make distributions to shareholders, or require us to maintain interest coverage or other current ratios.

Although the indenture governing the notes will contain limited covenants that would restrict our ability and the ability of certain of our subsidiaries to create, incur or assume secured indebtedness or to enter into sale and lease-back transactions or to pledge the capital stock of our subsidiaries, these restrictions only apply to the extent that the indebtedness created, incurred or assumed is secured by a lien on a Principal Property (as defined in the indenture) or by a pledge of capital stock of any of our direct or indirect subsidiaries that own a Principal Property, or to the

extent that the property subject to the sale and lease-back transaction is a Principal Property.

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In order to constitute a Principal Property for purposes of these covenants, a property must have a book value in excess of 3% of our most recently calculated consolidated net assets. Based on our consolidated net assets as of July 2, 2016, a property would only constitute a Principal Property if it had a book value in excess of approximately \$803 million. As of the date of this prospectus supplement, neither we nor any of our subsidiaries owns any Principal Property as defined. As a result, as of the date of this prospectus supplement, the notes would not restrict us or our subsidiaries from creating, incurring or assuming an unlimited amount of indebtedness secured by a lien on all of our respective assets or by a pledge of the capital stock of any of our subsidiaries, and we would not be required to equally and ratably secure the notes. As a result, any such secured indebtedness would effectively rank senior to the notes to the extent of the value of the assets and/or the capital stock providing the security.

Other than as described above and under the caption Description of the Notes Repurchase Upon a Change of Control below, the provisions of the indenture governing the notes will not afford holders of debt securities issued thereunder, including the notes, 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. In addition, our ability to recapitalize, incur additional debt and take a number of other actions that will not be limited by the terms of the notes or the indenture could have the effect of diminishing our ability to make payments on the notes when due.

The notes will be structurally subordinated to the debt and other liabilities of our existing and future subsidiaries.

The notes are not guaranteed by any of our subsidiaries and, accordingly, will be structurally subordinated to the indebtedness and other liabilities and commitments of all of our subsidiaries and a holder of the notes will not have any claim as a creditor against any subsidiary. Accordingly, claims of holders of the notes will be structurally subordinated to the claims of creditors of these subsidiaries, including trade creditors. All obligations of our subsidiaries will have to be satisfied before any of the assets of such subsidiaries would be available for distribution, upon a liquidation or otherwise, to us. In addition, the indenture governing the notes will not prohibit our subsidiaries from incurring additional indebtedness.

As of July 2, 2016:

we and our subsidiaries had approximately \$14.0 billion in outstanding consolidated indebtedness (excluding trade payables, intercompany liabilities and income tax-related liabilities);

our subsidiaries had approximately \$1.2 billion of indebtedness (excluding trade payables, intercompany liabilities and income tax-related liabilities) to which the notes would have been structurally subordinated;

Thermo Fisher Scientific Inc. had no secured indebtedness outstanding; and

after giving effect to this offering, the offering of the Euro Notes, our offering of euro-denominated floating rate notes in August 2016 and the use of proceeds therefrom, and assuming the application of the net proceeds from this offering to redeem certain of our existing debt, our total consolidated indebtedness would have been approximately \$ billion, and our subsidiaries would have had approximately \$1.2 billion of indebtedness to which the notes would have been structurally subordinated.

The notes will be unsecured and therefore would be effectively subordinated to our future secured debt, if any.

The notes will not be secured. As of July 2, 2016, we had no secured indebtedness outstanding. However, if we incur secured indebtedness in the future, the notes will be effectively subordinated to such secured indebtedness to the extent of the value of the assets securing such indebtedness. In the event of our bankruptcy, liquidation, reorganization or other winding up, our assets that secure such debt will be available to pay obligations on the notes only after the secured debt has been repaid in full from these assets. There may not be sufficient assets remaining to pay amounts due on any or all of the notes then outstanding.

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We may not be able to repurchase all of the notes upon a change of control triggering event, which would result in a default under the notes.

Upon the occurrence of a Change of Control Triggering Event (as defined herein), unless we have redeemed, defeased, or satisfied and discharged the notes, each holder of notes will have the right to require us to repurchase all or any part of such holder's notes at a price in cash equal to 101% of their principal amount, plus accrued and unpaid interest, if any, to, but excluding, the date of repurchase. If we experience a Change of Control Triggering Event, there can be no assurance that we would have sufficient financial resources available to satisfy our obligations to repurchase the notes. In addition, our ability to repurchase the notes for cash may be limited by law or by the terms of other agreements relating to our indebtedness outstanding at that time. Our failure to repurchase the notes as required under the indenture governing the notes would result in a default under the indenture, which could have material adverse consequences for us and for holders of the notes. See Description of the Notes Repurchase Upon a Change of Control.

Risks Relating to Our Business

We must develop new products, adapt to rapid and significant technological change and respond to introductions of new products by competitors to remain competitive.

Our growth strategy includes significant investment in and expenditures for product development. We sell our products in several industries that are characterized by rapid and significant technological changes, frequent new product and service introductions and enhancements and evolving industry standards. Competitive factors include technological innovation, price, service and delivery, breadth of product line, customer support, e-business capabilities and the ability to meet the special requirements of customers. Our competitors may adapt more quickly to new technologies and changes in customers' requirements than we can. Without the timely introduction of new products, services and enhancements, our products and services will likely become technologically obsolete over time, in which case our revenue and operating results would suffer.

Many of our existing products and those under development are technologically innovative and require significant planning, design, development and testing at the technological, product and manufacturing-process levels. Our customers use many of our products to develop, test and manufacture their own products. As a result, we must anticipate industry trends and develop products in advance of the commercialization of our customers' products. If we fail to adequately predict our customers' needs and future activities, we may invest heavily in research and development of products and services that do not lead to significant revenue.

It may be difficult for us to implement our strategies for improving internal growth.

Some of the markets in which we compete have been flat or declining over the past several years. To address this issue, we are pursuing a number of strategies to improve our internal growth, including:

strengthening our presence in selected geographic markets;

allocating research and development funding to products with higher growth prospects;

developing new applications for our technologies;

expanding our service offerings;

continuing key customer initiatives;

combining sales and marketing operations in appropriate markets to compete more effectively;

finding new markets for our products; and

continuing the development of commercial tools and infrastructure to increase and support cross-selling opportunities of products and services to take advantage of our depth in product offerings.

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We may not be able to successfully implement these strategies, and these strategies may not result in the expected growth of our business.

Our business is affected by general economic conditions and related uncertainties affecting markets in which we operate.

Our business is affected by general economic conditions, both inside and outside the U.S. If the global economy and financial markets, or economic conditions in Europe, the U.S. or other key markets, are unstable, it could adversely affect the business, results of operations and financial condition of the company and its customers, distributors, and suppliers, having the effect of:

reducing demand for some of our products;

increasing the rate of order cancellations or delays;

increasing the risk of excess and obsolete inventories;

increasing pressure on the prices for our products and services; and

creating longer sales cycles and greater difficulty in collecting sales proceeds.

For example, recent developments in Europe have created uncertainty with respect to the ability of certain European countries to continue to service their sovereign debt obligations. This debt crisis could result in customers in Europe taking longer to pay for products they have purchased from us, or being unable to pay at all. The continued weakness in world economies makes the strength and timing of any economic recovery uncertain, and there can be no assurance that global economic conditions will not deteriorate further.

Demand for some of our products depends on capital spending policies of our customers and on government funding policies.

Our customers include pharmaceutical and chemical companies, laboratories, universities, healthcare providers, government agencies and public and private research institutions. Many factors, including public policy spending priorities, available resources and product and economic cycles, have a significant effect on the capital spending policies of these entities.

Spending by some of these customers fluctuates based on budget allocations and the timely passage of the annual federal budget. An impasse in federal government budget decisions could lead to substantial delays or reductions in federal spending. In fiscal year 2013, the U.S. Government was unable to reach agreement on budget reduction measures required by the Budget Control Act of 2011. As a result, in early 2013, an enforcement mechanism known as sequestration went into effect, which triggered one year of budget reductions. In subsequent years, statutory spending caps have constrained federal funding levels. Despite agreement not to impose similar cuts in fiscal years 2014 through 2017, it is possible that Congress will allow similar cuts to occur again in fiscal year 2018 and beyond.

As a multinational corporation, we are exposed to fluctuations in currency exchange rates, which could adversely affect our cash flows and results of operations.

International markets contribute a substantial portion of our revenues, and we intend to continue expanding our presence in these regions. The exposure to fluctuations in currency exchange rates takes on different forms. International revenues and costs are subject to the risk that fluctuations in exchange rates could adversely affect our reported revenues and profitability when translated into U.S. dollars for financial reporting purposes. These fluctuations could also adversely affect the demand for products and services provided by us. As a multinational corporation, our businesses occasionally invoice third-party customers in currencies other than the one in which they primarily do business (the *functional currency*). Movements in the invoiced currency relative to the

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functional currency could adversely impact our cash flows and our results of operations. Should our international sales grow, exposure to fluctuations in currency exchange rates could have a larger effect on our financial results. In the first six months of 2016, currency translation had an unfavorable effect of \$77 million on revenues due to the strengthening of the U.S. dollar relative to other currencies in which the company sells products and services.

The approval of the Brexit Referendum in the United Kingdom may have an adverse impact on our results of operations.

In a referendum vote held on June 23, 2016, the United Kingdom voted to leave the European Union. In 2015, 4.6% of our revenues came from sales to the United Kingdom, which is our second largest market in Europe. The announcement of Brexit adversely impacted global markets, including currencies, and resulted in a sharp decline in the value of the British pound, as compared to the U.S. dollar and other currencies. The announcement of Brexit may create further global economic uncertainty, which may cause our customers in the U.K. and elsewhere to closely monitor their costs and reduce their spending budget on our products and services.

Healthcare reform legislation could adversely impact us.

The Patient Protection and Affordable Care Act could have an adverse impact on us. Some of the potential consequences, such as a reduction in governmental support of healthcare services or adverse changes to the delivery or pricing of healthcare services or products or mandated benefits, may cause healthcare-industry participants to purchase fewer of our products and services or to reduce the prices they are willing to pay for our products or services.

Our inability to protect our intellectual property could have a material adverse effect on our business. In addition, third parties may claim that we infringe their intellectual property, and we could suffer significant litigation or licensing expense as a result.

We place considerable emphasis on obtaining patent and trade secret protection for significant new technologies, products and processes because of the length of time and expense associated with bringing new products through the development process and into the marketplace. Our success depends in part on our ability to develop patentable products and obtain and enforce patent protection for our products both in the United States and in other countries. We own numerous U.S. and foreign patents, and we intend to file additional applications, as appropriate, for patents covering our products. Patents may not be issued for any pending or future patent applications owned by or licensed to us, and the claims allowed under any issued patents may not be sufficiently broad to protect our technology. Any issued patents owned by or licensed to us may be challenged, invalidated or circumvented, and the rights under these patents may not provide us with competitive advantages. In addition, competitors may design around our technology or develop competing technologies. Intellectual property rights may also be unavailable or limited in some foreign countries, which could make it easier for competitors to capture increased market position. We could incur substantial costs to defend ourselves in suits brought against us or in suits in which we may assert our patent rights against others. An unfavorable outcome of any such litigation could materially adversely affect our business and results of operations.

We also rely on trade secrets and proprietary know-how with which we seek to protect our products, in part, by confidentiality agreements with our collaborators, employees and consultants. These agreements may be breached and we may not have adequate remedies for any breach. In addition, our trade secrets may otherwise become known or be independently developed by our competitors.

Third parties may assert claims against us to the effect that we are infringing on their intellectual property rights. With our acquisition of Life Technologies Corporation, we became party to several lawsuits in which plaintiffs claim we infringe their intellectual property. We could incur substantial costs and diversion of management resources in defending these claims, which could have a material adverse effect on our business, financial condition and results of

operations. In addition, parties making these claims could secure a judgment

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awarding substantial damages, as well as injunctive or other equitable relief, which could effectively block our ability to make, use, sell, distribute, or market our products and services in the United States or abroad. In the event that a claim relating to intellectual property is asserted against us, or third parties not affiliated with us hold pending or issued patents that relate to our products or technology, we may seek licenses to such intellectual property or challenge those patents. However, we may be unable to obtain these licenses on commercially reasonable terms, if at all, and our challenge of the patents may be unsuccessful. Our failure to obtain the necessary licenses or other rights could prevent the sale, manufacture, or distribution of our products and, therefore, could have a material adverse effect on our business, financial condition and results of operations.

Changes in governmental regulations may reduce demand for our products or increase our expenses.

We compete in many markets in which we and our customers must comply with federal, state, local and international regulations, such as environmental, health and safety and food and drug regulations. We develop, configure and market our products to meet customer needs created by those regulations. Any significant change in regulations could reduce demand for our products or increase our expenses. For example, many of our instruments are marketed to the pharmaceutical industry for use in discovering and developing drugs. Changes in the U.S. Food and Drug Administration's regulation of the drug discovery and development process could have an adverse effect on the demand for these products.

If our security products do not operate as designed and fail to detect explosives or radiation, we could be exposed to product liability and related claims for which we may not have adequate insurance coverage.

Products currently or previously sold by our environmental and process instruments and radiation measurement and security instruments businesses include fixed and portable instruments used for chemical, radiation and trace explosives detection. These products are used in airports, embassies, cargo facilities, border crossings and other high-threat facilities for the detection and prevention of terrorist acts. If any of these products were to malfunction, it is possible that explosive or radioactive material could fail to be detected by our product, which could lead to product liability claims. There are also many other factors beyond our control that could lead to liability claims, such as the reliability and competence of the customers' operators and the training of such operators. Any such product liability claims brought against us could be significant and any adverse determination may result in liabilities in excess of our insurance coverage. Although we carry product liability insurance, we cannot be certain that our current insurance will be sufficient to cover these claims or that it can be maintained on acceptable terms, if at all.

Our inability to complete pending acquisitions or to successfully integrate any new or previous acquisitions could have a material adverse effect on our business.

Our business strategy includes the acquisition of technologies and businesses that complement or augment our existing products and services. Certain acquisitions may be difficult to complete for a number of reasons, including the need for antitrust and/or other regulatory approvals. Any acquisition we may complete may be made at a substantial premium over the fair value of the net identifiable assets of the acquired company. Further, we may not be able to integrate acquired businesses successfully into our existing businesses, make such businesses profitable, or realize anticipated cost savings or synergies, if any, from these acquisitions, which could adversely affect our business.

Moreover, we have acquired many companies and businesses. As a result of these acquisitions, we recorded significant goodwill and indefinite-lived intangible assets (primarily tradenames) on our balance sheet, which amount to approximately \$19.55 billion and \$1.25 billion, respectively, as of July 2, 2016. In addition, we have definite-lived intangible assets totaling \$11.59 billion as of July 2, 2016. We assess the realizability of goodwill and indefinite-lived intangible assets annually as well as whenever events or changes in circumstances indicate that these assets may be impaired. We assess the realizability of definite-lived intangible assets whenever events or changes in circumstances

indicate that these assets may be impaired. These events or circumstances would

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generally include operating losses or a significant decline in earnings associated with the acquired business or asset. Our ability to realize the value of the goodwill and intangible assets will depend on the future cash flows of these businesses. These cash flows in turn depend in part on how well we have integrated these businesses. If we are not able to realize the value of the goodwill and intangible assets, we may be required to incur material charges relating to the impairment of those assets.

We are subject to laws and regulations governing government contracts, and failure to address these laws and regulations or comply with government contracts could harm our business by leading to a reduction in revenue associated with these customers.

We have agreements relating to the sale of our products to government entities and, as a result, we are subject to various statutes and regulations that apply to companies doing business with the government. The laws governing government contracts differ from the laws governing private contracts and government contracts may contain pricing terms and conditions that are not applicable to private contracts. We are also subject to investigation for compliance with the regulations governing government contracts. A failure to comply with these regulations could result in suspension of these contracts, criminal, civil and administrative penalties or debarment.

Because we compete directly with certain of our larger customers and product suppliers, our results of operations could be adversely affected in the short term if these customers or suppliers abruptly discontinue or significantly modify their relationship with us.

Our largest customer in the laboratory products business is also a significant competitor. Our business may be harmed in the short term if our competitive relationship in the marketplace with certain of our large customers results in a discontinuation of their purchases from us. In addition, we manufacture products that compete directly with products that we source from third-party suppliers. We also source competitive products from multiple suppliers. Our business could be adversely affected in the short term if any of our large third-party suppliers abruptly discontinues selling products to us.

Because we rely heavily on third-party package-delivery services, a significant disruption in these services or significant increases in prices may disrupt our ability to ship products, increase our costs and lower our profitability.

We ship a significant portion of our products to our customers through independent package delivery companies, such as Federal Express in the U.S. and DHL in Europe. We also maintain a small fleet of vehicles dedicated to the delivery of our products and ship our products through other carriers, including national and regional trucking firms, overnight carrier services and the U.S. Postal Service. If one or more of these third-party package-delivery providers were to experience a major work stoppage, preventing our products from being delivered in a timely fashion or causing us to incur additional shipping costs we could not pass on to our customers, our costs could increase and our relationships with certain of our customers could be adversely affected. In addition, if one or more of these third-party package-delivery providers were to increase prices, and we were not able to find comparable alternatives or make adjustments in our delivery network, our profitability could be adversely affected.

We are required to comply with a wide variety of laws and regulations, and are subject to regulation by various federal, state and foreign agencies.

For example, some of our operations are subject to regulation by the U.S. Food and Drug Administration and similar international agencies. These regulations govern a wide variety of product activities, from design and development to labeling, manufacturing, promotion, sales and distribution. If we fail to comply with the U.S. Food and Drug Administration's regulations or those of similar international agencies, we may have to recall products and/or cease their manufacture and distribution, which would increase our costs and reduce our revenues.

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We are also subject to a variety of federal, state, local and international laws and regulations that govern, among other things, the importation and exportation of products, the handling, transportation and manufacture of substances that could be classified as hazardous, and our business practices in the U.S. and abroad such as anti-corruption and anti-competition laws. A failure to comply with these laws and regulations could result in criminal, civil and administrative penalties.

Regulations related to conflict minerals may cause us to incur additional expenses and could limit the supply and increase the cost of certain metals used in manufacturing our products.

In 2012 the SEC adopted a rule requiring disclosures by public companies of specified minerals, known as conflict minerals, that are necessary to the functionality or production of products manufactured or contracted to be manufactured. The rule requires an annual disclosure report to be filed, and requires companies to perform due diligence and disclose and report whether or not such minerals originate from the Democratic Republic of Congo or an adjoining country. The rule could affect sourcing at competitive prices and availability in sufficient quantities of certain minerals used in the manufacture of our products, including tantalum, tin, gold and tungsten. The number of suppliers who provide conflict-free minerals may be limited. In addition, there may be material costs associated with complying with the disclosure requirements, such as costs related to determining the source of certain minerals used in our products, as well as costs of possible changes to products, processes, or sources of supply as a consequence of such verification activities. As our supply chain is complex, we may not be able to sufficiently verify the origins of the relevant minerals used in our products through the due diligence procedures that we undertake, which may harm our reputation. In addition, we may encounter challenges to satisfy those customers who require that all of the components of our products be certified as conflict-free, which could place us at a competitive disadvantage if we are unable to do so.

Our business could be adversely affected by disruptions at our sites.

We rely upon our manufacturing operations to produce many of the products we sell and our warehouse facilities to store products, pending sale. Any significant disruption of those operations for any reason, such as strikes or other labor unrest, power interruptions, fire, or other events beyond our control could adversely affect our sales and customer relationships and therefore adversely affect our business. We have significant operations in California, near major earthquake faults, which make us susceptible to earthquake risk. Although most of our raw materials are available from a number of potential suppliers, our operations also depend upon our ability to obtain raw materials at reasonable prices. If we are unable to obtain the materials we need at a reasonable price, we may not be able to produce certain of our products or we may not be able to produce certain of these products at a marketable price, which could have an adverse effect on our results of operations.

Fluctuations in our effective tax rate may adversely affect our results of operations and cash flows.

As a global company, we are subject to taxation in numerous countries, states and other jurisdictions. In preparing our financial statements, we record the amount of tax that is payable in each of the countries, states and other jurisdictions in which we operate. Our future effective tax rate, however, may be lower or higher than experienced in the past due to numerous factors, including a change in the mix of our profitability from country to country, changes in accounting for income taxes and recently enacted and future changes in tax laws in jurisdictions in which we operate. Any of these factors could cause us to experience an effective tax rate significantly different from previous periods or our current expectations, which could have an adverse effect on our business, results of operations and cash flows.

We may incur unexpected costs from increases in fuel and raw material prices, which could reduce our earnings and cash flow.

Our primary commodity exposures are for fuel, petroleum-based resins and steel. While we may seek to minimize the impact of price increases through higher prices to customers and various cost-saving measures, our earnings and cash flows could be adversely affected in the event these measures are insufficient to cover our costs.

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Unforeseen problems with the implementation and maintenance of our information systems could have an adverse effect on our operations.

As a part of our ongoing effort to upgrade our current information systems, we periodically implement new enterprise resource planning software and other software applications to manage certain of our business operations. As we implement and add functionality, problems could arise that we have not foreseen. Such problems could adversely impact our ability to provide quotes, take customer orders and otherwise run our business in a timely manner. In addition, if our new systems fail to provide accurate pricing and cost data our results of operations and cash flows could be adversely affected.

We also rely on our technology infrastructure, among other functions, to interact with suppliers, sell our products and services, fulfill orders and bill, collect and make payments, ship products, provide services and support to customers, track customers, fulfill contractual obligations and otherwise conduct business. Our systems may be vulnerable to damage or interruption from natural disasters, power loss, telecommunication failures, terrorist attacks, computer viruses, computer denial-of-service attacks, unauthorized access to customer or employee data or company trade secrets, and other attempts to harm our systems. When we upgrade or change systems, we may suffer interruptions in service, loss of data or reduced functionality. Certain of our systems are not redundant, and our disaster recovery planning is not sufficient for every eventuality. Despite any precautions we may take, such problems could result in, among other consequences, interruptions in our services, which could harm our reputation and financial results.

Our debt may restrict our investment opportunities or limit our activities.

As of July 2, 2016, we had approximately \$14.0 billion in outstanding indebtedness (excluding trade payables, intercompany liabilities and income tax related liabilities). In addition, we have availability to borrow under a revolving credit facility that provides for up to \$2.50 billion of unsecured multi-currency revolving credit, a term loan credit facility that provides for up to \$2.0 billion of unsecured loans (in dollars and/or euro) to be used for the FEI Acquisition. Loans under the term loan credit facility may be made to us or our subsidiaries. We may also obtain additional long-term debt and lines of credit to meet future financing needs, which would have the effect of increasing our total leverage.

Our leverage could have negative consequences, including increasing our vulnerability to adverse economic and industry conditions, limiting our ability to obtain additional financing and limiting our ability to acquire new products and technologies through strategic acquisitions.

Our ability to make scheduled payments, refinance our obligations or obtain additional financing will depend on our future operating performance and on economic, financial, competitive and other factors beyond our control. Our business may not generate sufficient cash flow to meet our obligations. If we are unable to service our debt, refinance our existing debt or obtain additional financing, we may be forced to delay strategic acquisitions, capital expenditures or research and development expenditures.

Additionally, the agreements governing our debt require that we maintain certain financial ratios, and contain affirmative and negative covenants that restrict our activities by, among other limitations, limiting our ability to incur additional indebtedness, merge or consolidate with other entities, make investments, create liens, sell assets and enter into transactions with affiliates. The covenants in our revolving credit facility and the term loan facility for the FEI Acquisition (each, a *Facility* and together, the *Facilities*) include a total debt-to-Consolidated EBITDA ratio and an interest coverage ratio. Specifically, we have agreed that, so long as any lender has any commitment under the revolving credit facility, any letter of credit is outstanding under the revolving credit facility, or any loan or other obligation is outstanding under the revolving credit facility, we will not permit (as the following terms are defined in the credit agreement governing the revolving credit facility) the Consolidated Leverage Ratio (the ratio of consolidated Indebtedness to Consolidated EBITDA) to be greater than 3.5 to 1.0 as of the last day of any fiscal

quarter prior to the closing date of the FEI Acquisition. On and after the

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date that the FEI Acquisition closes, we have agreed that we will not permit the Consolidated Leverage Ratio as of the last day of any fiscal quarter to be greater than 4.5 to 1.0 for the first two consecutive quarters following the FEI Acquisition, with such ratio stepping down to 4.0 to 1.0 for the two immediately following fiscal quarters and then stepping down to 3.5 to 1.0 for each fiscal quarter thereafter. Our term loan facility for the FEI Acquisition include Consolidated Leverage Ratio covenants that are substantively the same as the covenant included in the revolving credit facility.

We have also agreed that so long as any lender has any commitment under the revolving credit facility or any letter of credit is outstanding under the revolving credit facility, or any loan or other obligation is outstanding under any Facility (including the term loan facility), we will not permit the Consolidated Interest Coverage Ratio (the ratio of Consolidated EBITDA to Consolidated Interest Expense) to be less than 3.0 to 1.0 for any fiscal quarter.

Our ability to comply with these financial restrictions and covenants is dependent on our future performance, which is subject to prevailing economic conditions and other factors, including factors that are beyond our control such as foreign exchange rates and interest rates. Our failure to comply with any of these restrictions or covenants may result in an event of default under the applicable debt instrument, which could permit acceleration of the debt under that instrument and require us to prepay that debt before its scheduled due date. Also, an acceleration of the debt under certain of our debt instruments would trigger an event of default under other of our debt instruments.

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 the consolidated financial statements and related notes in our 2015 Form 10-K and our Second Quarter 2016 Form 10-Q, which are incorporated by reference in this prospectus supplement and the accompanying prospectus.

| | Six Months Ended | Fiscal Year Ended December 31, | | | | |
|--|-----------------------------|---------------------------------------|-------------|-------------|-------------|-------------|
| | July 2, 2016 | 2015 | 2014 | 2013 | 2012 | 2011 |
| Ratios of earnings to fixed charges(1) | 4.7x | 5.1x | 4.9x | 5.3x | 5.5x | 6.2x |

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

USE OF PROCEEDS

We estimate that the net proceeds from the sale of the notes will be approximately \$ after deducting the underwriting discount and estimated offering expenses.

We intend to use a portion of the net proceeds of this offering to redeem all of the outstanding \$900 million aggregate principal amount of our 1.30% senior notes due 2017, which mature on February 1, 2017. We intend to use the remaining net proceeds for general corporate purposes, which may include, without limitation, the repayment, redemption or refinancing of indebtedness, capital expenditures, funding of possible acquisitions, working capital, satisfaction of other obligations or the repurchase of our outstanding equity securities.

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CAPITALIZATION

The following table presents our cash and cash equivalents and capitalization as of July 2, 2016 on an actual basis, on an as adjusted basis to give effect to the sale of 600 million aggregate principal amount of Floating Rate Senior Notes due 2018 in August 2016 and the use of proceeds therefrom and the sale of 1.6 billion aggregate principal amount of Euro Notes in September 2016 and on an as further adjusted basis to give effect to the sale of the notes offered hereby and the application of the net proceeds, after deducting the underwriting discount and estimated offering expenses, to redeem all of the outstanding \$900 million aggregate principal amount of our 1.30% senior notes due 2017, which mature on February 1, 2017. See Use of Proceeds.

You should read this table in conjunction with the information contained in our Management's Discussion and Analysis of Financial Condition and Results of Operations and our consolidated financial statements and related notes in our 2015 Form 10-K and Second Quarter 2016 Form 10-Q, which are incorporated by reference into this prospectus supplement and the accompanying prospectus.

The capitalization table below is not necessarily indicative of our future capitalization or financial condition.

| | Actual | July 2, 2016 As Adjusted(1) (in millions) | As Further Adjusted(2) |
|---|-------------|--|---------------------------|
| Cash and cash equivalents | \$ 663.1 | \$ 2,468.2 | \$ |
| Debt included in current liabilities: | | | |
| Short-term obligations | 1,614.0 | 989.4 | |
| Current maturities of long-term debt | 901.9 | 901.9 | |
| | 2,515.9 | 1,891.3 | |
| Debt included in long-term liabilities: | | | |
| Long-term debt, excluding current maturities(3) | 11,631.9 | 14,062.0 | |
| % Notes offered hereby | | | |
| Total debt | 14,147.8 | 15,953.3 | |
| Total shareholders' equity | 21,263.9 | 21,263.9 | |
| Total capitalization | \$ 35,411.7 | \$ 37,217.2 | \$ |

- (1) As adjusted to give effect to (i) the issuance in August 2016 of 600 million aggregate principal amount of Floating Rate Senior Notes due 2018 and the repayment of all of the outstanding indebtedness under our term loan facility and (ii) the issuance in September 2016 of 1.6 billion aggregate principal amount of Euro Notes. The as adjusted reflects the net proceeds received from the sale of the Euro Notes in cash and cash equivalents and does not give effect to the use of the net proceeds from the issuance of the Euro Notes to fund a portion of the cash consideration payable for, and certain costs associated with, the FEI Acquisition.

- (2) As further adjusted to reflect the sale of the notes and the redemption of our 1.30% senior notes due 2017, which mature on February 1, 2017.

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DESCRIPTION OF THE NOTES

We will initially issue \$ _____ aggregate principal amount of _____ % Senior Notes due _____ (the *notes*). The notes will be issued as a separate series of debt securities under an indenture, dated as of November 20, 2009 (the *base indenture*), between us and The Bank of New York Mellon Trust Company, N.A., as trustee (the *trustee*). That indenture will be supplemented by a supplemental indenture to be entered into concurrently with the delivery of the notes (the *base indenture*, as so supplemented, the *indenture*). The indenture provides that our debt securities may be issued in one or more series, with different terms, in each case, as authorized from time to time by us. The specific terms of each other series that we may issue in the future may differ from those of the notes. The indenture does not limit the aggregate amount of debt securities that may be issued under the indenture, nor does it limit the number of other series or the aggregate amount of any particular series.

The following description is a summary, and does not describe every aspect of the notes and the indenture. The following description is subject to, and qualified in its entirety by, all the provisions of the indenture, including definitions of certain terms used in the indenture. Anyone who receives this prospectus supplement may obtain a copy of the indenture without charge upon request. See [Where You Can Find More Information and Incorporation by Reference](#). We urge you to read the indenture and the notes because they, and not this description, define your rights as a holder of the notes.

For purposes of this description, references to Thermo Fisher, the company, we, us and our refer only to Thermo Fisher Scientific Inc. and not to any of its current or future subsidiaries.

General

The notes will be limited initially to \$ _____ aggregate principal amount, but we may from time to time, without giving notice to or seeking the consent of the holders of the notes, issue additional notes having the same terms (except for the issue date, the offering price and, if applicable, the first interest payment date) and ranking equally and ratably with the original notes. Any such additional debt securities having such similar terms, together with the original notes, will constitute a single series of debt securities with the notes for all purposes under the indenture, including, without limitation, waivers, amendments and redemptions.

The notes will be:

general unsecured obligations of ours;

effectively subordinated in right of payment to all existing and future secured indebtedness of ours to the extent of the assets securing such indebtedness;

structurally subordinated to all existing and future indebtedness and other liabilities and commitments (including trade payables and lease obligations) of our subsidiaries, to the extent of the assets of such subsidiaries;

equal in right of payment with all existing and future unsecured and unsubordinated indebtedness of ours; and

senior in right of payment to any existing and future indebtedness of ours that is subordinated to the notes.

As of July 2, 2016:

we and our subsidiaries had approximately \$14.0 billion in outstanding consolidated indebtedness (excluding trade payables, intercompany liabilities and income tax-related liabilities);

our subsidiaries had approximately \$1.2 billion of indebtedness (excluding trade payables, intercompany liabilities and income tax-related liabilities) to which the notes would have been structurally subordinated;

Thermo Fisher Scientific Inc. had no secured indebtedness outstanding; and

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after giving effect to this offering of notes, the offering of Euro Notes, our offering of euro-denominated floating rate notes in August 2016 and the use of proceeds therefrom, and assuming the application of the net proceeds from this offering to redeem certain of our existing debt, our total consolidated indebtedness would have been approximately \$ billion, and our subsidiaries would have had approximately \$1.2 billion of indebtedness to which the notes would have been structurally subordinated.

The notes will be issued in fully registered form only, in minimum denominations of \$2,000 and integral multiples of \$1,000 in excess of \$2,000. The notes will be issued in the form of one or more global securities, without coupons, which will be deposited initially with, or on behalf of, DTC.

Interest

The notes will mature on , . Interest on the notes will accrue at the rate of % per annum.

We will pay interest on the notes from , 2016 or from the most recent interest payment date to which interest has been paid or duly provided for, semi-annually in arrears on and of each year, commencing , 2017, until the principal is paid or made available for payment. Interest will be paid to the persons in whose names the notes are registered at the close of business on the 15th calendar day (whether or not a business day), as the case may be, immediately preceding the relevant interest payment date. Interest with respect to the notes will be computed on the basis of a 360-day year of twelve 30-day months.

If any interest payment date or date of maturity of principal of the notes falls on a day that is not a business day, then payment of interest or principal may be made on the next succeeding business day with the same force and effect as if made on the nominal date of maturity, and no interest will accrue for the period after such nominal date. For purposes of the notes, business day means any day other than Saturday, Sunday or a day on which Federal or State banking institutions in the Borough of Manhattan, The City of New York are authorized or obligated by law, executive order or regulation to close.

Optional Redemption

At any time and from time to time prior to the Par Call Date, we will have the right to redeem at our option the notes, in whole at any time or in part from time to time, on at least 15 days but no more than 60 days prior written notice transmitted to the registered holders of the notes to be redeemed. Upon redemption of the notes, we will pay a redemption price equal to the greater of:

- (1) 100% of the principal amount of the notes to be redeemed, and
- (2) the sum of the present values of the Remaining Scheduled Payments (as defined below) of the notes to be redeemed, discounted to the date of redemption on a semi-annual basis (assuming a 360-day year consisting of twelve 30-day months) using a discount rate equal to the Treasury Rate (as defined below) *plus* basis points,

plus, in each case, accrued and unpaid interest thereon, if any, to, but excluding, the redemption date. We will calculate the redemption price.

In addition, on and after the Par Call Date, we will have the option to redeem the notes, in whole at any time or in part from time to time, at a redemption price equal to 100% of the principal amount of the notes to be redeemed, plus accrued and unpaid interest, if any, to, but excluding, the date of redemption.

Notwithstanding any of the foregoing, installments of interest on the notes that are due and payable on interest payment dates falling on or prior to a redemption date will be payable on the interest payment date to the registered holders as of the close of business on the relevant record date in accordance with the notes and the indenture.

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If less than all of the notes are to be redeemed, the notes to be redeemed shall be selected in accordance with the applicable procedures of DTC, or, if in definitive form, on a pro rata basis. Unless we default in payment of the redemption price, on and after the redemption date, interest will cease to accrue on the notes or portions thereof called for redemption.

Comparable Treasury Issue means the U.S. Treasury security selected by the Independent Investment Banker as having an actual or interpolated maturity comparable to the remaining term of the notes to be redeemed (assuming that the notes matured on the Par Call Date) that would be utilized, at the time of selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the remaining term of the notes to be redeemed.

Comparable Treasury Price means, with respect to any redemption date, (a) the average of the Reference Treasury Dealer Quotations for such redemption date, after excluding the highest and lowest of the Reference Treasury Dealer Quotations, (b) if we obtain fewer than four Reference Treasury Dealer Quotations, the arithmetic average of those quotations or (c) if we obtain only one Reference Treasury Dealer Quotation, such Reference Treasury Dealer Quotation.

Independent Investment Banker means one of the Reference Treasury Dealers whom we appoint.

Par Call Date means _____, (_____ months prior to the maturity date of the notes).

Reference Treasury Dealer means each of (i) J.P. Morgan Securities LLC, Citigroup Global Markets Inc. and Deutsche Bank Securities Inc. and their respective affiliates or successors or (ii) two other nationally recognized investment banking firms (or their respective affiliates) that we select in connection with the particular redemption, and their respective successors, provided that if at any time any of the above is not a primary U.S. Government securities dealer, we will substitute that entity with another nationally recognized investment banking firm that we select that is a primary U.S. Government securities dealer.

Reference Treasury Dealer Quotations means, with respect to each Reference Treasury Dealer and any redemption date, the arithmetic average, as determined by the Independent Investment Banker, of the bid and asked prices for the Comparable Treasury Issue (expressed, in each case, as a percentage of its principal amount) quoted in writing to the Independent Investment Banker by such Reference Treasury Dealer at 3:30 p.m., New York City time, on the third business day preceding such redemption date.

Remaining Scheduled Payments means, with respect to each note to be redeemed, the remaining scheduled payments of the principal thereof and interest thereon that would be due after the related redemption date for such redemption (assuming that the notes matured on the Par Call Date); provided, however, that, if such redemption date is not an interest payment date with respect to such note, the amount of the next succeeding scheduled interest payment thereon will be reduced by the amount of interest accrued thereon to such redemption date.

Treasury Rate means, for any redemption date, the rate per annum equal to the semi-annual equivalent yield to maturity or interpolated yield to maturity, computed as the second business day immediately preceding that redemption date, of the Comparable Treasury Issue, assuming a price for the Comparable Treasury Issue (expressed as a percentage of its principal amount) equal to the Comparable Treasury Price for that redemption date.

Repurchase Upon a Change of Control

If a Change of Control Triggering Event occurs, unless we have redeemed the notes in full, as described above, have defeased the notes or have satisfied and discharged the notes as described below, we will make an offer to each holder of notes (a *Change of Control Offer*) to repurchase any and all of such holder's notes at a

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repurchase price in cash equal to 101% of the aggregate principal amount of such notes (such principal amount to be equal to \$2,000 or integral multiples of \$1,000 in excess thereof), plus accrued and unpaid interest, if any, thereon, to, but excluding, the date of repurchase (the *Change of Control Payment*). Within 30 days following any Change of Control Triggering Event, notice shall be delivered to holders of notes describing the transaction or transactions that constitute the Change of Control Triggering Event and offering to repurchase the notes on the date specified in the notice, which date will be no earlier than 15 days and no later than 60 days from the date such notice is delivered (the *Change of Control Payment Date*), pursuant to the procedures required by the notes and described in such notice. Notwithstanding the foregoing, installments of interest on the notes that are due and payable on interest payment dates falling on or prior to the Change of Control Payment Date will be payable on such interest payment dates to the registered holders as of the close of business on the relevant record dates in accordance with the notes and the indenture. We must comply in all material respects with the requirements of Rule 14e-1 under the Exchange Act, and any other securities laws and regulations thereunder to the extent those laws and regulations are applicable in connection with the repurchase of the notes as a result of a Change of Control Triggering Event. To the extent that the provisions of any such securities laws or regulations conflict with the Change of Control repurchase provisions of the notes, we will be required to comply with the applicable securities laws and regulations and will not be deemed to have breached our obligations under the Change of Control repurchase provisions of the notes by virtue of such conflicts.

On the Change of Control Payment Date, we will be required, to the extent lawful, to:

accept for payment all notes or portions of notes properly tendered pursuant to the Change of Control Offer;

deposit with the trustee or a paying agent an amount equal to the Change of Control Payment in respect of all notes or portions of notes properly tendered; and

deliver or cause to be delivered to the trustee the notes properly accepted, together with an officers certificate stating the principal amount of notes or portions of notes being repurchased.

Below Investment Grade Rating Event means the notes are downgraded below Investment Grade Rating by any two of the Rating Agencies on any date during the period (the *Trigger Period*) commencing 60 days prior to the first public announcement by us of the occurrence of a Change of Control (or pending Change of Control) and ending 60 days following consummation of such Change of Control (which Trigger Period shall be extended so long as the rating of the notes is under publicly announced consideration for possible downgrade by at least two of such Rating Agencies on such 60th day, such extension to last with respect to each such Rating Agency until the date on which such Rating Agency considering such possible downgrade either (x) rates the notes below Investment Grade or (y) publicly announces that it is no longer considering the notes for possible downgrade, provided that no such extension will occur if on such 60th day the notes are rated Investment Grade by at least two of such Rating Agencies in question and are not subject to review for possible downgrade by such Rating Agencies).

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

1. the direct or indirect sale, transfer, conveyance or other disposition (other than by way of merger or consolidation), in one or a series of related transactions, of all or substantially all of the properties or assets of Thermo Fisher and its subsidiaries taken as a whole to any person (as that term is used in Section 13(d)(3) of the Exchange Act) other than Thermo Fisher or one of its direct or indirect wholly owned subsidiaries;

2. the consummation of any transaction (including, without limitation, any merger or consolidation) as a result of which any person (as that term is used in Section 13(d)(3) of the Exchange Act) becomes the beneficial owner (as defined in Rules 13d-3 and 13d-5 under the Exchange Act), directly or indirectly, of more than 50% of Thermo Fisher's outstanding voting stock or other voting stock into which Thermo Fisher's voting stock is reclassified, consolidated, exchanged or changed, measured by voting power rather than number of shares;

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3. Thermo Fisher consolidates with, or merges with or into, any person or group (as that term is used in Section 13(d)(3) of the Exchange Act), or any person or group consolidates with, or merges with or into, Thermo Fisher, in any such event pursuant to a transaction in which any of Thermo Fisher's voting stock or the voting stock of such other person is converted into or exchanged for cash, securities or other property, other than any such transaction where the shares of Thermo Fisher's voting stock outstanding immediately prior to such transaction constitute, or are converted into or exchanged for, a majority of the voting stock of the surviving person or any direct or indirect parent company of the surviving person immediately after giving effect to such transaction; or

4. the adoption of a plan relating to Thermo Fisher's liquidation or dissolution.

Notwithstanding the foregoing, a transaction will not be deemed to involve a Change of Control if (a) Thermo Fisher becomes a direct or indirect wholly owned subsidiary of a holding company (which shall include a parent company) and (b)(i) the holders of the voting stock of such holding company immediately following that transaction are substantially the same as the holders of our voting stock immediately prior to that transaction or (ii) no person (as that term is used in Section 13(d)(3) of the Exchange Act) (other than a holding company satisfying the requirements of this sentence) becomes the beneficial owner (as defined in Rules 13d-3 and 13d-5 under the Exchange Act), directly or indirectly, of more than 50% of the voting power of the voting stock of such holding company immediately following such transaction.

For purposes of this definition, *voting stock* means with respect to any specified person (as that term is used in Section 13(d)(3) of the Exchange Act) capital stock of any class or kind the holders of which are ordinarily, in the absence of contingencies, entitled to vote for the election of directors (or persons performing similar functions) of such person, even if the right to vote has been suspended by the happening of such a contingency.

The definition of Change of Control includes a phrase relating to the direct or indirect sale, lease, transfer, conveyance or other disposition of all or substantially all of the properties or assets of Thermo Fisher and its subsidiaries taken as a whole. Although there is a limited body of case law interpreting the phrase substantially all, there is no precise established definition of the phrase under applicable law. Accordingly, the applicability of the requirement that we offer to repurchase the notes as a result of a sale, lease, transfer, conveyance or other disposition of less than all of the assets of Thermo Fisher and its subsidiaries taken as a whole to another person or group may be uncertain.

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

Fitch means Fitch Ratings Limited, and any successor to its rating agency business.

Investment Grade Rating means a rating by Moody's equal to or higher than Baa3 (or the equivalent under a successor rating category of Moody's) or a rating by S&P equal to or higher than BBB- (or the equivalent under any successor rating category of S&P) or a rating by Fitch equal to or higher than BBB- (or the equivalent under any successor rating category of Fitch).

Moody's means Moody's Investors Service, Inc., and any successor to its rating agency business.

Rating Agencies means (1) Moody's, S&P and Fitch; and (2) if any of Moody's, S&P or Fitch ceases to rate the notes or fails to make a rating of the notes publicly available for any reason, a nationally recognized statistical rating organization within the meaning of Section 3(a)(62) under the Exchange Act, selected by us (as certified by a resolution of our board of directors) as a replacement agency for any of Moody's, S&P or Fitch, or all of them, as the case may be.

S&P means S&P Global Ratings, a division of S&P Global, Inc., and any successor to its rating agency business.

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Events of Default

The indenture defines an Event of Default with respect to the notes. Events of Default on the notes are any of the following:

Default in the payment of the principal or any premium on a note when due (whether at maturity, upon acceleration, redemption or otherwise).

Default for 30 days in the payment of interest on a note when due.

Failure by us to comply with the provisions described under the caption Repurchase Upon a Change of Control.

Failure by us to observe or perform any other term of the indenture applicable to the notes 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 trustee or holders of 25% of the principal amount of the notes.

(1) Failure by us to pay indebtedness for money we borrowed or guaranteed the payment of in an aggregate principal amount of at least \$100 million at the later of final maturity and the expiration of any related applicable grace period and such defaulted payment shall not have been made, waived or extended within 30 days or (2) acceleration of the maturity of any indebtedness for money we borrowed or guaranteed the payment of in an aggregate principal amount of at least \$100 million, if such indebtedness has not been discharged in full or such acceleration has not been rescinded or annulled within 30 days; *provided, however*, that, if the default under the instrument is cured by us, or waived by the holders of the indebtedness, in each case, as permitted by the governing instrument, then the Event of Default under the indenture governing the notes caused by such default will be deemed likewise to be cured or waived.

Certain events in bankruptcy, insolvency or reorganization with respect to us.

An Event of Default under one series of debt securities issued pursuant to the indenture does not necessarily constitute an Event of Default under any other series of debt securities. The indenture provides that the trustee may withhold notice to the holders of any series of debt securities issued thereunder, including the notes, of any default if the trustee's board of directors, executive committee, or a trust committee of directors or trustees and/or certain officers of the trustee in good faith determine it in the interest of such holders to do so.

Remedies if an Event of Default Occurs

The indenture provides that if an Event of Default with respect to the notes has occurred and has not been cured, the trustee or the holders of not less than 25% in aggregate principal amount of the notes then outstanding may declare the entire principal amount of all of the notes, and accrued interest, if any, 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 the notes will be automatically accelerated, without any action by the trustee or any holder. The holders of a majority in aggregate principal amount of the notes may by written notice to us and the trustee, on behalf of the holders of the notes, rescind an acceleration or waive any existing Default or Event of Default and its consequences under the indenture, if the rescission would not conflict with

any judgment or decree, except a continuing Default or Event of Default in the payment of principal of, premium on, if any, or interest, if any, on, the notes.

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

Before you bypass the 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 notes, the following must occur:

You must give the trustee written notice that an Event of Default has occurred and remains uncured.

The holders of not less than 25% in aggregate principal amount of all outstanding notes must make a written request that the trustee take action because of the Event of Default, and must offer reasonable indemnity to the trustee against the cost and other liabilities of taking that action.

The 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 trustee has not received a contrary instruction from holders of a majority in principal amount of all outstanding notes.

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

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

Book-Entry, Delivery and Form

The notes will be issued in registered, global form in minimum denominations of \$2,000 and integral multiples of \$1,000 in excess thereof. Notes will be issued at the closing of this offering only against payment in immediately available funds. The notes initially will be represented by notes in registered, global form without interest coupons (the *Global Notes*). The Global Notes will be deposited upon issuance with the trustee as custodian for DTC, in New York, New York, and registered in the name of DTC's nominee, Cede & Co., in each case, for credit to an account of a direct or indirect participant in DTC as described below. Global Notes may be transferred, in whole and not in part, only to another nominee of DTC or to a successor of DTC or its nominee.

Beneficial interests in the Global Notes may be held through the Euroclear System (*Euroclear*) and Clearstream Banking, S.A. (*Clearstream*) (as indirect participants in DTC). Beneficial interests in the Global Notes may not be exchanged for notes in certificated form (*Certificated Notes*) except in the limited circumstances described below. See Exchange of global notes for certificated notes. Transfers of beneficial interests in the Global Notes will be subject to the applicable rules and procedures of DTC and its direct or indirect participants (including, if applicable, those of Euroclear and Clearstream), which may change from time to time.

Exchange of global notes for certificated notes

We will issue certificated notes to each person that DTC identifies as the beneficial owner of the notes represented by a Global Note upon surrender by DTC of the Global Note if:

DTC notifies us that it is no longer willing or able to act as a depository for such Global Note or ceases to be a clearing agency registered under the Exchange Act, and we have not appointed a successor depository within 90 days of that notice or becoming aware that DTC is no longer so registered or willing or able to act as a depository;

an event of default has occurred and is continuing, and DTC requests the issuance of Certificated Notes; or

we determine not to have the notes represented by a Global Note.

In all cases, Certificated Notes delivered in exchange for any Global Note or beneficial interests in Global Notes will be in registered form, registered in the names, and issued in any approved denominations, requested by or on behalf of the depositary (in accordance with its customary procedures).

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Depository procedures

The following description of the operations and procedures of DTC, Euroclear and Clearstream are provided solely as a matter of convenience. These operations and procedures are solely within the control of the respective settlement systems and are subject to changes by them. Thermo Fisher takes no responsibility for these operations and procedures and urges investors to contact the system or their participants directly to discuss these matters.

DTC has advised Thermo Fisher that DTC is a limited-purpose trust company created to hold securities for its participating organizations (collectively, the *Participants*) and to facilitate the clearance and settlement of transactions in those securities between the Participants through electronic book-entry changes in accounts of its Participants. The Participants include securities brokers and dealers (including the underwriters), banks, trust companies, clearing corporations and certain other organizations. Access to DTC's system is also available to other entities such as banks, brokers, dealers and trust companies that clear through or maintain a custodial relationship with a Participant, either directly or indirectly (collectively, the *Indirect Participants*). Persons who are not Participants may beneficially own securities held by or on behalf of DTC only through the Participants or the Indirect Participants. The ownership interests in, and transfers of ownership interests in, each security held by or on behalf of DTC are recorded on the records of the Participants and Indirect Participants.

DTC has also advised Thermo Fisher that, pursuant to procedures established by it:

upon deposit of the Global Notes, DTC will credit the accounts of the Participants designated by the underwriters with portions of the principal amount of the Global Notes; and

ownership of these interests in the Global Notes will be shown on, and the transfer of ownership of these interests will be effected only through, records maintained by DTC (with respect to the Participants) or by the Participants and the Indirect Participants (with respect to other owners of beneficial interest in the Global Notes).

Investors in the Global Notes who are Participants may hold their interests therein directly through DTC. Investors in the Global Notes who are not Participants may hold their interests therein indirectly through organizations (including Euroclear and Clearstream) that are Participants in such system. Euroclear and Clearstream will hold interests in the Global Notes on behalf of their participants through customers' securities accounts in their respective names on the books of their respective depositories, which are Euroclear Bank S.A./N.V., as operator of the Euroclear System, and Citibank, N.A., as operator of Clearstream. All interests in a Global Note, including those held through Euroclear or Clearstream, may be subject to the procedures and requirements of DTC.

Those interests held through Euroclear or Clearstream may also be subject to the procedures and requirements of such systems.

The laws of some states require that certain persons take physical delivery in definitive form of securities that they own. Consequently, the ability to transfer beneficial interests in a Global Note to such persons will be limited to that extent. Because DTC can act only on behalf of the Participants, which in turn act on behalf of the Indirect Participants, the ability of a person having beneficial interests in a Global Note to pledge such interests to persons that do not participate in the DTC system, or otherwise take actions in respect of such interests, may be affected by the lack of a physical certificate evidencing such interests.

Except as described above, owners of beneficial interests in the Global Notes will not have notes registered in their names, will not receive physical delivery of notes in certificated form and will not be considered the registered owners or Holders thereof under the indenture for any purpose.

Payments in respect of the principal of, and interest and premium, if any, on a Global Note registered in the name of DTC or its nominee will be payable to DTC in its capacity as the registered holder of the notes under the indenture. Under the terms of the indenture, Thermo Fisher and the trustee will treat the persons in whose names

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the notes, including the Global Notes, are registered as the owners of the notes for the purpose of receiving payments and for all other purposes. Consequently, neither Thermo Fisher, the trustee nor any of Thermo Fisher's or the trustee's agents has or will have any responsibility or liability for:

any aspect of DTC's records or any Participant's or Indirect Participant's records relating to, or payments made on account of, beneficial ownership interests in the Global Notes or for maintaining, supervising or reviewing any of DTC's records or any Participant's or Indirect Participant's records relating to the beneficial ownership interests in the Global Notes; or

any other matter relating to the actions and practices of DTC or any of its Participants or Indirect Participants. DTC has advised Thermo Fisher that its current practice, upon receipt of any payment in respect of securities such as the notes, is to credit the accounts of the relevant Participants with the payment on the payment date unless DTC has reason to believe it will not receive payment on such payment date. Each relevant Participant is credited with an amount proportionate to its beneficial ownership of an interest in the principal amount of the relevant security as shown on the records of DTC. Payments by the Participants and the Indirect Participants to the beneficial owners of notes will be governed by standing instructions and customary practices and will be the responsibility of the Participants or the Indirect Participants and will not be the responsibility of DTC, the trustee or Thermo Fisher. Neither Thermo Fisher nor the trustee will be liable for any delay by DTC or any of the Participants or the Indirect Participants in identifying the beneficial owners of the notes, and Thermo Fisher and the trustee may conclusively rely on and will be protected in relying on instructions from DTC or its nominee for all purposes.

Transfers between the Participants will be effected in accordance with DTC's procedures and will be settled in same-day funds, and transfers between participants in Euroclear and Clearstream will be effected in accordance with their respective rules and operating procedures.

Cross-market transfers between the Participants in DTC, on the one hand, and Euroclear or Clearstream participants, on the other hand, will be effected through DTC in accordance with DTC's rules on behalf of Euroclear or Clearstream, as the case may be, by its depositary; however, such cross-market transactions will require delivery of instructions to Euroclear or Clearstream, as the case may be, by the counterparty in such system in accordance with the rules and procedures and within the established deadlines (Brussels time) of such system. Euroclear or Clearstream, as the case may be, will, if the transaction meets its settlement requirements, deliver instructions to its respective depositary to take action to effect final settlement on its behalf by delivering or receiving interests in the relevant Global Note in DTC, and making or receiving payment in accordance with normal procedures for same-day funds settlement applicable to DTC. Euroclear participants and Clearstream participants may not deliver instructions directly to the depositories for Euroclear or Clearstream. DTC has advised Thermo Fisher that it will take any action permitted to be taken by a holder of notes only at the direction of one or more Participants to whose account DTC has credited the interests in the Global Notes and only in respect of such portion of the aggregate principal amount of the notes as to which such Participant or Participants has or have given such direction. However, if there is an Event of Default under the notes, DTC reserves the right to exchange the Global Notes for Certificated Notes, and to distribute such notes to the Participants.

Although DTC, Euroclear and Clearstream have agreed to the foregoing procedures to facilitate transfers of interests in the Global Notes among participants in DTC, Euroclear and Clearstream, they are under no obligation to perform or to continue to perform such procedures, and may discontinue such procedures at any time. None of Thermo Fisher, the trustee or any of their respective agents will have any responsibility for the performance by DTC, Euroclear or Clearstream or their respective participants or indirect participants of their respective obligations under the rules and procedures governing their operations.

Governing Law

The indenture and the notes, for all purposes, shall be governed by and construed in accordance with the laws of the State of New York.

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CERTAIN MATERIAL U.S. FEDERAL TAX CONSIDERATIONS

The following is a summary of certain material U.S. federal income and estate tax considerations related to the purchase, ownership and disposition of the notes. This summary is based upon provisions of the Internal Revenue Code of 1986, as amended (the *Code*), the U.S. Treasury Regulations promulgated thereunder (the *U.S. Treasury Regulations*) administrative rulings and judicial decisions in effect as of the date of this prospectus supplement, any of which may subsequently be changed, possibly retroactively, or interpreted differently by the Internal Revenue Service (the *IRS*), so as to result in U.S. federal income and estate tax consequences different from those discussed below. Except where noted, this summary deals only with notes held as capital assets (generally for investment purposes) by a beneficial owner who purchases notes on original issuance at the initial offering price at which a substantial amount of the notes are sold for cash to persons other than bond houses, brokers, or similar persons or organizations acting in the capacity of underwriters, placement agents or wholesalers, which we refer to as the *issue price*. This summary does not address all aspects of U.S. federal income and estate taxes related to the purchase, ownership and disposition of the notes and does not address all tax consequences that may be relevant to holders in light of their personal circumstances or particular situations, such as:

tax consequences to holders who may be subject to special tax treatment, including dealers in securities or currencies, banks and other financial institutions, regulated investment companies, real estate investment trusts, tax-exempt entities, insurance companies and traders in securities that elect to use a mark-to-market method of accounting for their securities;

tax consequences to persons holding notes as a part of a hedging, integrated, conversion or constructive sale transaction or a straddle;

tax consequences to U.S. holders (as defined below) of notes whose functional currency is not the U.S. dollar;

tax consequences to partnerships or other pass-through entities and their members;

tax consequences to certain former citizens or residents of the United States;

U.S. federal alternative minimum tax consequences, if any;

the potential application of the Medicare tax on net investment income;

any state, local or foreign tax consequences; and

U.S. federal estate or gift taxes, if any, except as set forth below with respect to non-U.S. holders (as defined below).

If a partnership (including any entity or arrangement treated as a partnership for U.S. federal income tax purposes) holds notes, the tax treatment of a partner will generally depend upon the status of the partner and the activities of the

partnership. A beneficial owner that is a partnership and partners in such a partnership should consult their own tax advisors.

This summary of material U.S. federal income and estate tax considerations is for general information only and is not tax advice for any particular investor. This summary does not address the tax considerations arising under the laws of any foreign, state, or local jurisdiction. If you are considering the purchase of notes, you should consult your own tax advisors concerning the U.S. federal income and estate tax consequences to you in light of your own specific situation, as well as consequences arising under the laws of any other taxing jurisdiction.

In this discussion, we use the term "U.S. holder" to refer to a beneficial owner of notes, that is, for U.S. federal income tax purposes:

an individual citizen or resident of the United States;

a corporation (or any other entity or arrangement treated as a corporation for U.S. federal income tax purposes) created or organized in or under the laws of the United States, any state thereof or the District of Columbia;

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an estate the income of which is subject to U.S. federal income taxation regardless of its source; or

a trust, if it (i) is subject to the primary supervision of a court within the U.S. and one or more U.S. persons have the authority to control all substantial decisions of the trust, or (ii) has a valid election in effect under applicable U.S.

Treasury Regulations to be treated as a U.S. person.

We use the term *non-U.S. holder* to describe a beneficial owner (other than a partnership or other pass-through entity) of notes that is not a U.S. holder. Non-U.S. holders should consult their own tax advisors to determine the U.S. federal, foreign, state, local and any other tax consequences that may be relevant to them.

Consequences to U.S. Holders

Payments of interest

It is anticipated, and this discussion assumes, that the issue price of the notes will be equal to the stated principal amount or if the issue price is less than the stated principal amount, the difference will be a de minimis amount (as set forth in the applicable U.S. Treasury Regulations). In such case (subject to the discussion below under *Additional payments*), interest on a note generally will be taxable to a U.S. holder as ordinary income at the time it is received or accrued in accordance with the U.S. holder's usual method of accounting for tax purposes. If, however, the issue price of the notes is less than the stated principal amount and the difference is more than a de minimis amount (as set forth in the applicable U.S. Treasury Regulations), a U.S. holder will be required to include the difference in income as original issue discount as it accrues in accordance with a constant yield method (as set forth in the applicable U.S. Treasury Regulations).

Additional payments

In certain circumstances, we may be obligated to pay amounts in excess of stated interest or principal on the notes. For example, if we are required to repurchase the notes in connection with a Change of Control Triggering Event as described in *Description of the Notes Repurchase Upon a Change of Control*, we must pay a 1% premium. The possibility of such payments may implicate special rules under U.S. Treasury Regulations governing contingent payment debt instruments. According to those regulations, the possibility that additional payments will be made will not cause the notes to be contingent payment debt instruments if, as of the date the notes are issued, there is only a remote chance that such payments will be made or certain other exceptions apply. We have determined, and intend to take the position (and the remainder of this discussion assumes), that the notes are not contingent payment debt instruments.

Our determination that the notes are not contingent payment debt instruments is binding on U.S. holders unless they disclose their contrary positions to the IRS in the manner required by applicable U.S. Treasury Regulations. Our determination that the notes are not contingent payment debt instruments is not, however, binding on the IRS. If the IRS were to successfully challenge our determination and the notes were treated as contingent payment debt instruments, U.S. holders would be required, among other things, to (i) accrue interest income based on a projected payment schedule and comparable yield, which may be a higher rate than the stated interest rate on the notes, regardless of their method of tax accounting and (ii) treat as ordinary income, rather than capital gain, any gain recognized on a sale, exchange or redemption of a note. In the event that any of the above contingencies were to occur, it would affect the amount and timing of the income recognized by a U.S. holder.

Sale, redemption or other taxable disposition of notes

A U.S. holder generally will recognize gain or loss upon the sale, redemption or other taxable disposition of a note equal to the difference between the amount realized and such U.S. holder's adjusted tax basis in the note. The amount

realized will equal the amount of the cash and the fair market value of any property received in exchange for the note (other than amounts attributable to accrued but unpaid interest, which amounts will be treated as ordinary interest income for U.S. federal income tax purposes to the extent not previously included in

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income). A U.S. holder's adjusted tax basis in a note will generally be equal to the amount that such U.S. holder paid for the note. Any gain or loss recognized on a taxable disposition of the note will generally be capital gain or loss. If, at the time of the sale, redemption or other taxable disposition of the note, a U.S. holder is treated as holding the note for more than one year, such capital gain or loss will be a long-term capital gain or loss. Otherwise, such capital gain or loss will be a short-term capital gain or loss. In the case of certain non-corporate U.S. holders (including individuals), long-term capital gain generally is subject to U.S. federal income tax at a lower rate than short-term capital gain, which is taxed at ordinary income rates. A U.S. holder's ability to deduct capital losses is subject to significant limitations under the Code.

Assumption of our obligations under the notes

Under certain circumstances, our obligations under the notes and the indenture may be assumed by another person. An assumption by another person of our obligations under the notes and the indenture might be deemed for U.S. federal income tax purposes to be an exchange by a holder of the notes for new notes, resulting in recognition of gain or loss for such purposes and possibly other adverse tax consequences to the holder. Holders should consult their own tax advisors regarding the tax consequences of such an assumption.

Information reporting and backup withholding

Information reporting requirements generally will apply to payments of interest on the notes and to the proceeds of a sale of a note paid to a U.S. holder unless the U.S. holder is an exempt recipient. Backup withholding at the applicable rate (currently 28%) will apply to those payments if the U.S. holder fails to provide its correct taxpayer identification number, or certification of its exempt status, (generally by providing an IRS Form W-9 or an approved substitute), or if the U.S. holder is notified by the IRS that the U.S. holder has failed to report in full payments of interest and dividend income and is therefore subject to backup withholding. Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules will be allowed as a refund or a credit against a U.S. holder's U.S. federal income tax liability provided that the required information is timely furnished to the IRS.

Consequences to Non-U.S. Holders

Payments of interest

In general, payments of interest on the notes to a non-U.S. holder will be considered portfolio interest and, subject to the discussions below of income effectively connected with a U.S. trade or business, backup withholding and FATCA, will not be subject to U.S. federal income or withholding tax, provided that:

the non-U.S. holder does not directly or indirectly, actually or constructively, own 10% or more of the total combined voting power of all classes of our stock entitled to vote within the meaning of Section 871(h)(3) of the Code;

the non-U.S. holder is not a bank whose receipt of interest on a note is described in Section 881(c)(3)(A) of the Code;

the non-U.S. holder is not, for U.S. federal income tax purposes, a controlled foreign corporation that is related to us (actually or constructively) through stock ownership; and

(a) the non-U.S. holder provides its name, address, and taxpayer identification number, if any, and certifies, under penalties of perjury, that it is not a U.S. person (which certification may be made on an IRS Form W-8BEN, Form W-8BEN-E or other applicable form) or (b) the non-U.S. holder holds the notes through certain foreign intermediaries or certain foreign partnerships, and the non-U.S. holder and the foreign intermediary or foreign partnership satisfy the certification requirements of applicable U.S. Treasury Regulations. Special certification rules apply to non-U.S. holders that are pass-through entities.

If a non-U.S. holder cannot satisfy the requirements described above, payments of interest generally will be subject to the 30% U.S. federal withholding tax, unless the non-U.S. holder provides the applicable withholding

agent with a properly executed (i) IRS Form W-8BEN or W-8BEN-E (or other applicable form) claiming an exemption from or reduction in withholding under an applicable income tax treaty or (ii) IRS Form W-8ECI (or other applicable form) stating that interest paid on the notes is not subject to withholding tax because it is effectively connected with the non-U.S. holder's conduct of a trade or business in the United States and includable in the non-U.S. holder's gross income.

If (i) a non-U.S. holder is engaged in a trade or business in the United States, (ii) interest on the notes is effectively connected with the conduct of that trade or business and (iii) if required by an applicable income tax treaty, such interest is attributable to a U.S. permanent establishment or fixed base, then, although the non-U.S. holder will be exempt from the 30% withholding tax (provided the certification requirements discussed above are satisfied), the non-U.S. holder will be subject to U.S. federal income tax on that interest on a net income basis at regular graduated U.S. federal income tax rates, generally in the same manner as if the non-U.S. holder were a U.S. holder. In addition, if a non-U.S. holder is a foreign corporation, it may be subject to a branch profits tax equal to 30% (or a lesser rate under an applicable income tax treaty) of its effectively connected earnings and profits for the taxable year, subject to certain adjustments.

Sale, redemption or other taxable disposition of notes

Subject to the discussion below of backup withholding and FATCA, gain realized by a non-U.S. holder on the sale, redemption or other taxable disposition of a note will not be subject to U.S. income tax unless:

that gain is effectively connected with the non-U.S. holder's conduct of a trade or business in the United States (and, if required by an applicable income tax treaty, is attributable to a U.S. permanent establishment or fixed base); or

the non-U.S. holder is an individual who is present in the United States for 183 days or more in the taxable year of that disposition and certain other conditions are met.

If a non-U.S. holder is described in the first bullet point above, it will be subject to tax on the net gain derived from the sale, redemption, or other taxable disposition of the notes, generally in the same manner as if the non-U.S. holder were a U.S. holder. In addition, if a non-U.S. holder is a foreign corporation, it may be subject to the branch profits tax equal to 30% (or a lesser rate under an applicable income tax treaty) of its effectively connected earnings and profits for the taxable year, subject to certain adjustments. If a non-U.S. holder is an individual described in the second bullet point above, such holder will be subject to a flat 30% tax (or a lesser rate under an applicable income tax treaty) on the gain derived from the sale, redemption, or other taxable disposition, which may be offset by certain U.S. source capital losses, even though such holder is not considered a resident of the United States.

Information reporting and backup withholding

Generally, the applicable withholding agent must report annually to the IRS and to non-U.S. holders the amount of interest paid to non-U.S. holders and the amount of tax, if any, withheld with respect to those payments. Copies of the information returns reporting such interest payments and withholding may also be made available to the tax authorities in the country in which a non-U.S. holder resides under the provisions of an applicable income tax treaty.

In general, a non-U.S. holder will not be subject to backup withholding with respect to payments of interest that we make, provided that the certification described above in the last bullet point under "Consequences to Non-U.S. Holders" has been received and the payor does not have actual knowledge or reason to know that the holder is a U.S. person, as defined under the Code, who is not an exempt recipient. In addition, a non-U.S. holder will be subject to information reporting and, depending on the circumstances, backup withholding with respect to the

proceeds of the sale of a note within the United States or conducted through

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certain U.S.-related financial intermediaries, unless the certification described above has been received, and the payor does not have actual knowledge or reason to know that a holder is a U.S. person, as defined under the Code, who is not an exempt recipient, or the non-U.S. holder otherwise establishes an exemption.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules will be allowed as a refund or a credit against a non-U.S. holder's U.S. federal income tax liability, provided that the required information is furnished timely to the IRS. The backup withholding and information reporting rules are complex, and non-U.S. holders are urged to consult their own tax advisors regarding application of these rules to their particular circumstances.

U.S. federal estate taxes

A note beneficially owned by an individual who is not a citizen or resident of the United States (as specially defined for U.S. federal estate tax purposes) at the time of his or her death generally will not be subject to U.S. federal estate tax as a result of the individual's death, provided that:

the individual does not directly or indirectly, actually or constructively, own 10% or more of the total combined voting power of all classes of Thermo Fisher's stock entitled to vote within the meaning of Section 871(h)(3) of the Code; and

interest payments with respect to such note, if received at the time of the individual's death, would not have been effectively connected with the conduct of a U.S. trade or business by the individual.

FATCA

Provisions of the Code commonly referred to as the Foreign Account Tax Compliance Act, or FATCA, impose a 30% withholding tax on payments of interest on the notes and, after December 31, 2018, gross proceeds from the sale or other disposition of the notes (including settlement of the notes at maturity) if paid to a foreign entity unless (i) if the foreign entity is a foreign financial institution, the foreign entity undertakes certain due diligence, reporting, withholding, and certification obligations, (ii) if the foreign entity is not a foreign financial institution, the foreign entity identifies certain of its U.S. investors, or (iii) the foreign entity is otherwise exempt from FATCA. If withholding under FATCA is required on any payment related to the notes, investors not otherwise subject to withholding (or that otherwise would be entitled to a reduced rate of withholding) on such payment may be required to seek a refund or credit from the IRS. Prospective investors are encouraged to consult their own tax advisors regarding the possible implications of FATCA on their investment in the notes.

UNDERWRITING

J.P. Morgan Securities LLC, Citigroup Global Markets Inc. and Deutsche Bank Securities Inc. are acting as representatives of each of the several underwriters named below. Subject to the terms and conditions set forth in a firm commitment underwriting agreement among us and the underwriters, we have agreed to sell to the underwriters, and each of the underwriters has agreed, severally and not jointly, to purchase from us, the principal amount of notes set forth opposite its name below.

| Underwriter | Principal Amount of Notes |
|-------------------------------|--------------------------------------|
| J.P. Morgan Securities LLC | \$ |
| Citigroup Global Markets Inc. | |
| Deutsche Bank Securities Inc. | |
| Total | \$ |

Subject to the terms and conditions set forth in the underwriting agreement, the underwriters have agreed, severally and not jointly, to purchase all of the notes sold under the underwriting agreement if any of these notes are purchased. If an underwriter defaults, the underwriting agreement provides that the purchase commitments of the nondefaulting underwriters may be increased or the underwriting agreement may be terminated.

We have agreed to indemnify the several underwriters and their controlling persons against certain liabilities in connection with this offering, including liabilities under the Securities Act, or to contribute to payments the underwriters may be required to make in respect of those liabilities.

The underwriters are offering the notes, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel, including the validity of the notes, and other conditions contained in the underwriting agreement, such as the receipt by the underwriters of officers' certificates and legal opinions. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part. The underwriters may offer and sell the notes through certain of their affiliates.

Commissions and Discounts

The representatives have advised us that the underwriters propose initially to offer the notes to the public at the public offering price set forth on the cover page of this prospectus supplement. After the initial offering, the public offering price or any other terms of the offering may be changed.

The expenses of the offering, not including the underwriting discount, are estimated at \$ _____ and are payable by us.

New Issue of Notes

The notes are a new issue of securities with no established trading market. We do not intend to apply for listing of the notes on any national securities exchange or for inclusion of the notes on any automated dealer quotation system. We have been advised by the underwriters that they presently intend to make a market in the notes after completion of the offering. However, they are under no obligation to do so and may discontinue any market-making activities at any time without any notice. We cannot assure the liquidity of the trading market for the notes or that an active public market for the notes will develop. If an active public trading market for the notes does not develop, the market price and liquidity of the notes may be adversely affected. If the notes are traded, they may trade at a discount from the initial offering price, depending on prevailing interest rates, the market for similar securities, our operating performance and financial condition, general economic conditions and other factors. Moreover, the condition of the financial markets and prevailing interest rates have fluctuated in the past and are likely to fluctuate in the future, which could have an adverse effect on the market price of the notes.

Short Positions and Penalty Bids

In connection with the offering, the underwriters may purchase and sell notes in the open market. These transactions may include short sales, stabilizing transactions and purchases on the open market to cover positions created by short sales. Short sales involve the sale by the underwriters of a greater principal amount of notes than they are required to purchase in the offering. The underwriters must close out any short position by purchasing notes in the open market. A short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the prices of the notes in the open market after pricing that could adversely affect investors who purchase in the offering. Stabilizing transactions consist of certain bids or purchases made for the purpose of preventing or retarding a decline in the market price of the notes while the offering is still in progress.

Similar to other purchase transactions, the underwriters' purchases to cover the syndicate short sales may have the effect of raising or maintaining the market price of the notes or preventing or retarding a decline in the market price of the notes. As a result, the price of the notes may be higher than the price that might otherwise exist in the open market.

The underwriters may also impose a penalty bid in connection with the offering. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the representatives have repurchased notes sold by or for the account of such underwriter in stabilizing or short covering transactions.

Neither we nor any of the underwriters make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of the notes. In addition, neither we nor any of the underwriters make any representation that the representatives will engage in these transactions or that these transactions, once commenced, will not be discontinued without notice.

Other Relationships

Certain of the underwriters and/or their affiliates are lenders under our credit facilities.

The underwriters and their respective affiliates are full service financial institutions engaged in various activities. Certain of the underwriters and their respective affiliates have, from time to time, performed and may perform, various financial advisory, corporate trust, commercial banking and investment banking services for us and our affiliates, for which they received or will receive customary fees and expenses.

In addition, in the ordinary course of their business activities, the underwriters and their respective affiliates, officers, directors and employees may make or hold a broad array of investments and actively trade debt and equity securities

(or related derivative securities) and financial instruments (including bank loans) for their own

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account and for the accounts of their customers. Such investments and securities activities may involve securities and/or instruments of ours or our affiliates. If any of the underwriters or their affiliates has a lending relationship with us, then certain of those underwriters or their affiliates may hedge their credit exposure to us consistent with their customary risk management policies. Typically, such underwriters and their affiliates would hedge such exposure by entering into transactions which consist of either the purchase of credit default swaps or the creation of short positions in our securities, including potentially the notes offered hereby. Any such credit default swaps or short positions could adversely affect future trading prices of the notes offered hereby. The underwriters and their affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or financial instruments and may hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

Notice to Prospective Investors in the European Economic Area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a *Relevant Member State*), with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State (the *Relevant Implementation Date*), no offer of notes may be made to the public in that Relevant Member State other than:

- (a) to any legal entity which is a qualified investor as defined in the Prospectus Directive;
- (b) to fewer than 150 natural or legal persons (other than *qualified investors* as defined in the Prospectus Directive), as permitted under the Prospectus Directive, subject to obtaining the prior consent of the representatives; or
- (c) in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of notes shall require us or the representatives to publish a prospectus pursuant to Article 3 of the Prospectus Directive or supplement a prospectus pursuant to Article 16 of the Prospectus Directive.

Each person in a Relevant Member State (other than a Relevant Member State where there is a Permitted Public Offer) who initially acquires any notes or to whom any offer is made will be deemed to have represented, acknowledged and agreed that (A) it is a *qualified investor* within the meaning of the law in that Relevant Member State implementing Article 2(1)(e) of the Prospectus Directive, and (B) in the case of any notes acquired by it as a financial intermediary, as that term is used in Article 3(2) of the Prospectus Directive, the notes acquired by it in the offering have not been acquired on behalf of, nor have they been acquired with a view to their offer or resale to, persons in any Relevant Member State other than *qualified investors* as defined in the Prospectus Directive, or in circumstances in which the prior consent of the representatives has been given to the offer or resale. In the case of any notes being offered to a financial intermediary as that term is used in Article 3(2) of the Prospectus Directive, each such financial intermediary will be deemed to have represented, acknowledged and agreed that the notes acquired by it in the offer have not been acquired on a non-discretionary basis on behalf of, nor have they been acquired with a view to their offer or resale to, persons in circumstances which may give rise to an offer of any notes to the public other than their offer or resale in a Relevant Member State to *qualified investors* as so defined or in circumstances in which the prior consent of the representatives has been obtained to each such proposed offer or resale.

We, the representatives and their affiliates will rely upon the truth and accuracy of the foregoing representation, acknowledgement and agreement.

For the purpose of the above provisions, the expression "an offer to the public" in relation to any notes in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the notes to be offered so as to enable an investor to decide to purchase or subscribe the notes, as the same may be varied in the Relevant Member State by any measure implementing the Prospectus

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Directive in the Relevant Member State and the expression *Prospectus Directive* means Directive 2003/71/EC (including the 2010 PD Amending Directive) and includes any relevant implementing measure in the Relevant Member State and the expression *2010 PD Amending Directive* means Directive 2010/73/EU.

Notice to Prospective Investors in the United Kingdom

In addition, in the United Kingdom, this prospectus supplement is being distributed only to, and is directed only at, and any offer subsequently made may only be directed at persons who are qualified investors (as defined in the Prospectus Directive) (i) who have professional experience in matters relating to investments falling within Article 19 (5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended (the *Order*) and/or (ii) who are high net worth companies (or persons to whom it may otherwise be lawfully communicated) falling within Article 49(2)(a) to (d) of the Order (all such persons together being referred to as *relevant persons*). This prospectus supplement must not be acted on or relied on in the United Kingdom by persons who are not relevant persons. In the United Kingdom, any investment or investment activity to which this prospectus supplement relates is only available to, and will be engaged in with, relevant persons.

Notice to Prospective Investors in Hong Kong

The notes may not be offered or sold by means of any document other than (i) in circumstances which do not constitute an offer to the public within the meaning of the Companies Ordinance (Cap.32, Laws of Hong Kong), or (ii) to professional investors within the meaning of the Securities and Futures Ordinance (Cap.571, Laws of Hong Kong) and any rules made thereunder, or (iii) in other circumstances which do not result in the document being a prospectus within the meaning of the Companies Ordinance (Cap.32, Laws of Hong Kong), and no advertisement, invitation or document relating to the notes may be issued or may be in the possession of any person for the purpose of issue (in each case, whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the laws of Hong Kong) other than with respect to notes which are or are intended to be disposed of only to persons outside Hong Kong or only to professional investors within the meaning of the Securities and Futures Ordinance (Cap. 571, Laws of Hong Kong) and any rules made thereunder.

Notice to Prospective Investors in Japan

The securities have not been and will not be registered under the Financial Instruments and Exchange Law of Japan (the Financial Instruments and Exchange Law) and each underwriter has agreed that it will not offer or sell any securities, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan), or to others for re-offering or resale, directly or indirectly, in Japan or to a resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the Financial Instruments and Exchange Law and any other applicable laws, regulations and ministerial guidelines of Japan.

Notice to Prospective Investors in Singapore

Neither this prospectus supplement nor the accompanying prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus supplement and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the notes may not be circulated or distributed, nor may the notes be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore (the *SFA*), (ii) to a relevant person, or any person pursuant to Section 275(1A), and in accordance with the conditions, specified in Section 275 of the SFA or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

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Where the notes are subscribed or purchased under Section 275 by a relevant person which is: (a) a corporation (which is not an accredited investor) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or (b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary is an accredited investor, notes, debentures and units of notes and debentures of that corporation or the beneficiaries' rights and interest in that trust shall not be transferable for 6 months after that corporation or that trust has acquired the notes under Section 275 except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person, or any person pursuant to Section 275(1A), and in accordance with the conditions, specified in Section 275 of the SFA; (2) where no consideration is given for the transfer; or (3) by operation of law.

Notice to Prospective Investors in Canada

The notes may be sold in Canada only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 *Prospectus Exemptions* or subsection 73.3(1) of the *Securities Act* (Ontario), and are permitted clients, as defined in National Instrument 31-103 *Registration Requirements, Exemptions and Ongoing Registrant Obligations*. Any resale of the notes must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus supplement (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 of National Instrument 33-105 *Underwriting Conflicts* (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

LEGAL MATTERS

Certain legal matters in connection with the notes will be passed upon for Thermo Fisher by Wilmer Cutler Pickering Hale and Dorr LLP, New York, New York. The underwriters have been represented by O Melveny & Myers LLP, New York, New York.

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EXPERTS

The financial statements and management's assessment of the effectiveness of internal control over financial reporting (which is included in Management's Annual Report on Internal Control over Financial Reporting) incorporated in this prospectus supplement by reference to the Annual Report on Form 10-K of Thermo Fisher Scientific Inc. for the year ended December 31, 2015 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

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WHERE YOU CAN FIND MORE INFORMATION AND INCORPORATION BY REFERENCE

We file annual, quarterly and current reports, proxy statements and other documents with the SEC under the Exchange Act. The public may read and copy any materials that we file with the SEC at the SEC's Public Reference Room at 100 F Street NE, Washington, D.C. 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. Also, the SEC maintains a website that contains reports, proxy and information statements and other information that issuers, including Thermo Fisher, file electronically with the SEC. The public can obtain any documents that we file with the SEC at www.sec.gov. We also make available free of charge on or through our own website at www.thermofisher.com our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and, if applicable, amendments to those reports filed or furnished pursuant to Section 13(a) of the Exchange Act as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. We make our website content available for information purposes only. It should not be relied upon for investment purposes, nor is it incorporated by reference into this prospectus supplement or the accompanying prospectus.

We incorporate by reference information into this prospectus supplement, any related free writing prospectus, and the accompanying prospectus, which means that we are disclosing important information to you by referring you to another document filed with the SEC. The information incorporated by reference is deemed to be part of this prospectus supplement, any related free writing prospectus, and the accompanying prospectus except for any information that is superseded by information in this prospectus supplement. This prospectus supplement incorporates by reference the following documents that we previously filed with the SEC (File No. 001-08002):

our Annual Report on Form 10-K filed with the SEC on February 25, 2016, including information specifically incorporated by reference into our Annual Report on Form 10-K from our definitive proxy statement for our 2016 Annual Meeting of Stockholders on Schedule 14A filed on April 5, 2016;

our quarterly reports on Form 10-Q filed with the SEC on May 6, 2016 and August 5, 2016; and

our current reports on Form 8-K filed with the SEC on January 11, 2016, February 25, 2016, March 31, 2016, April 5, 2016, April 13, 2016, May 16, 2016, May 19, 2016, May 27, 2016, July 1, 2016, August 2, 2016, August 9, 2016, September 8, 2016 and September 12, 2016 (other than information in such reports that is deemed to have been furnished to, rather than filed with, the SEC in accordance with SEC rules).

We also incorporate by reference any filings we make with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus supplement and prior to the time that we sell all of the securities offered by this prospectus supplement. The information incorporated by reference, as updated, is an important part of this prospectus supplement. Information that is deemed to be furnished to, rather than filed with, the SEC shall not be incorporated by reference.

Any statement contained in a document incorporated or deemed to be incorporated by reference into this prospectus supplement will be deemed to be modified or superseded for purposes of this prospectus supplement, any related free writing prospectus, and the accompanying prospectus to the extent that a statement contained in this prospectus supplement, any related free writing prospectus, or the accompanying prospectus or in any other subsequently filed document that also is or is deemed to be incorporated by reference into this prospectus supplement, any related free writing prospectus, or the accompanying prospectus conflicts with, negates, modifies or supersedes that statement. Any statement that is modified or superseded will not constitute a part of this prospectus supplement, any related free writing prospectus, or the accompanying prospectus, except as modified or superseded.

Paper copies of the filings referred to above (other than exhibits, unless the exhibit is specifically incorporated by reference into the filing requested) may be obtained free of charge by writing to us or calling us, care of our Investor Relations Department at our principal executive office located at 168 Third Avenue, Waltham, Massachusetts 02451, Telephone: (781) 622-1000.

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PROSPECTUS

Thermo Fisher Scientific Inc.

Debt Securities

Common Stock

Preferred Stock

Depository Shares

Purchase Contracts

Purchase Units

Warrants

Guarantees

Thermo Fisher Scientific (Finance I) B.V.

Debt Securities

(fully and unconditionally guaranteed by Thermo Fisher Scientific Inc.)

The Issuers 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.

The Issuers 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.

The common stock of Thermo Fisher Scientific Inc. trades on The New York Stock Exchange under the symbol TMO .

Investing in these securities involves certain risks. See Risk Factors included in or incorporated by reference in any accompanying prospectus supplement and elsewhere 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 August 1, 2016.

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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, Thermo Fisher or Thermo Fisher International may from time to time sell any combination of the securities described in this prospectus in one or more offerings.

This prospectus provides you with a general description of the securities the Issuers may offer. Each time Thermo Fisher or Thermo Fisher International sells 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 contained in this prospectus. You should read both this prospectus and the accompanying prospectus supplement together with the additional information described under the heading *Where You Can Find More Information* on page 2 of this prospectus.

You should rely only on the information contained in or incorporated by reference in this prospectus, any accompanying prospectus supplement or in any related free writing prospectus filed by us with the SEC. We have not authorized anyone to provide you with different information. This prospectus and the accompanying prospectus supplement do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the securities described in the accompanying prospectus supplement or an offer to sell or the solicitation of an offer to buy such securities in any circumstances in which such offer or solicitation is unlawful. You should assume that the information appearing in this prospectus, any prospectus supplement, the documents incorporated by reference and any related free writing prospectus is accurate only as of their respective dates. Our business, financial condition, results of operations and prospects may have changed materially since those dates.

Unless the context otherwise indicates, references in this prospectus to *we*, *our* and *us* refer, collectively, to Thermo Fisher Scientific Inc., a Delaware corporation, and its consolidated subsidiaries. The term *Thermo Fisher* refers to Thermo Fisher Scientific Inc. a Delaware corporation, the term *Thermo Fisher International* refers to Thermo Fisher Scientific (Finance I) B.V., a private limited liability company incorporated under Dutch law and the term *Issuers* refers to Thermo Fisher and Thermo Fisher International, collectively.

Pursuant to Rule 3-10(b) (*Rule 3-10(b)*) of Regulation S-X, this prospectus does not contain separate financial statements for Thermo Fisher International since Thermo Fisher International is a direct subsidiary of Thermo Fisher that is wholly-owned by Thermo Fisher, and Thermo Fisher files consolidated financial information under the Securities Exchange Act of 1934, as amended (the *Exchange Act*). Thermo Fisher International, which was formed on July 6, 2016, is a finance subsidiary of Thermo Fisher under Rule 3-10(b) with no independent function other than financing activities. Thermo Fisher will provide a full and unconditional guarantee of Thermo Fisher International's obligations under its debt securities, and no other subsidiary of Thermo Fisher will guarantee these obligations.

WHERE YOU CAN FIND MORE INFORMATION

Thermo Fisher files 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.thermofisher.com. 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 in and exhibits to the registration statement for further information on us and the securities the Issuers 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.

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 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.001-08002) and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (in each case, other than those documents or the portions of those documents not deemed to be filed) until the offering of the securities under the registration statement is terminated or completed:

Annual Report on Form 10-K for the fiscal year ended December 31, 2015, filed with the SEC on February 25, 2016 (including those portions of our definitive proxy statement on Schedule 14A filed with the SEC on April 5, 2016, that are incorporated by reference in our Annual Report on Form 10-K for the fiscal year ended December 31, 2015);

Quarterly Report on Form 10-Q for the quarter ended April 2, 2016, filed with the SEC on May 6, 2016;

Current Reports on Form 8-K filed on January 11, 2016, February 25, 2016, March 31, 2016, April 5, 2016, April 13, 2016, May 16, 2016, May 19, 2016, May 27, 2016 and July 1, 2016; and

the description of our common stock contained in our Amendment No. 3 to Registration Statement on Form 8-A filed on September 9, 1999, including any amendments or reports filed for the purpose of updating such description.

You may request a copy of these filings, at no cost, by writing or telephoning us at the following address:

Thermo Fisher Scientific Inc.

81 Wyman Street

Waltham, Massachusetts 02451

Attn: Investor Relations

Telephone: (781) 622-1111

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. Any statements contained herein that are not statements of historical fact may be deemed to be forward-looking statements. Without limiting the foregoing, the words believes, anticipates, plans, expects, seeks, estimates, and similar expressions are intended to identify forward-looking statements. While we may elect to update forward-looking statements in the future, we specifically disclaim any obligation to do so, even if our estimates change, and investors should not rely on those forward-looking statements as representing our views as of any date subsequent to the date of this prospectus or the date of information incorporated by reference herein.

A number of important factors could cause our results to differ materially from those indicated by such forward-looking statements, including those detailed in the section of any prospectus supplement or document incorporated by reference in this prospectus entitled Risk Factors.

THERMO FISHER

Thermo Fisher is the world leader in serving science. Our mission is to enable our customers to make the world healthier, cleaner and safer. We help our customers accelerate life sciences research, solve complex analytical challenges, improve patient diagnostics and increase laboratory productivity.

Thermo Fisher had over 50,000 employees and served more than 400,000 customers within pharmaceutical and biotech companies, hospitals and clinical diagnostic labs, universities, research institutions and government agencies, as well as environmental, industrial quality and process control settings, as of April 2, 2016.

We serve our customers through our premier brands, Thermo Scientific, Applied Biosystems, Invitrogen, Fisher Scientific and Unity Lab Services:

The Thermo Scientific brand offers customers in research, diagnostics, industrial, and applied markets a complete range of high-end analytical instruments as well as laboratory equipment, software, services, consumables and reagents. Our portfolio of products includes innovative technologies for mass spectrometry, chromatography, elemental analysis, molecular spectroscopy, sample preparation, informatics, chemical research and analysis, cell culture, bioprocess production, cellular, protein and molecular biology research, allergy testing, drugs-of-abuse testing, therapeutic drug monitoring testing, microbiology, anatomical pathology, as well as environmental monitoring and process control.

The Applied Biosystems brand offers customers in research, clinical and applied markets integrated instrument systems, reagents, and software for genetic analysis. Our portfolio includes innovative technologies for genetic sequencing and real-time, digital and end point polymerase chain reaction (PCR), that are used to determine meaningful genetic information in applications such as cancer diagnostics, human identification testing, and animal health, as well as inherited and infectious disease.

The Invitrogen brand offers life science customers a broad range of consumables and instruments that accelerate research and ensure consistency of results. Our portfolio of products includes innovative solutions for cellular analysis and biology, flow cytometry, cell culture, protein expression, synthetic biology, molecular biology and protein biology.

Fisher Scientific is our channels brand, offering customers a complete portfolio of laboratory equipment, chemicals, supplies and services used in scientific research, healthcare, safety, and education markets. These products are offered through an extensive network of direct sales professionals, industry-specific catalogs, e-commerce capabilities and supply-chain management services. We also offer a range of biopharma services for clinical trials management and biospecimen storage.

Unity Lab Services is our services brand, offering a complete portfolio of services from enterprise level engagements to individual instruments and laboratory equipment, regardless of the original manufacturer. Through our network of world-class service and support personnel, we provide services that are designed to help our customers improve productivity, reduce costs, and drive decisions with better data.

We continuously increase our depth of capabilities in technologies, software and services, and leverage our extensive global channels to address our customers' emerging needs. Our goal is to make our customers more productive in an

increasingly competitive business environment, and to allow them to solve their challenges, from complex research to improved patient care, environmental and process monitoring, and consumer safety.

Thermo Fisher is a Delaware corporation and was incorporated in 1956. We completed our initial public offering in 1967 and our common stock was listed on the New York Stock Exchange in 1980. Thermo Fisher's principal executive offices are located at 81 Wyman Street, Waltham, Massachusetts 02451, and its telephone number is (781) 622-1000.

THERMO FISHER INTERNATIONAL

Thermo Fisher International, a private limited liability company (*besloten vennootschap met beperkte aansprakelijkheid*), was incorporated on July 6, 2016, under the laws of The Netherlands, with its corporate seat in Breda, The Netherlands, and its registered office is located at Takkebijsters 1, 4817BL Breda, The Netherlands. Thermo Fisher International is a direct, wholly-owned finance subsidiary of Thermo Fisher and conducts no independent operations other than its financing activities. Thermo Fisher International's telephone number is +31-76-579-5555.

RATIOS 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 the consolidated financial statements and notes in our Annual Report on Form 10-K for the fiscal year ended December 31, 2015 filed with the SEC on February 25, 2016, which is incorporated by reference in this prospectus.

| | Quarter Ended | | Fiscal Year Ended | | | |
|--|----------------------|-------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | April 2, 2016 | December 3, 2015 | December 31, 2014 | December 31, 2013 | December 31, 2012 | December 31, 2011 |
| Ratios of earnings to fixed charges(1) | 4.5x | 5.1x | 4.9x | 5.3x | 5.5x | 6.2x |

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

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 the acquisition of companies or businesses, repayment and refinancing of debt, working capital and capital expenditures or the repurchase of our outstanding equity securities. We may temporarily invest the net proceeds in short-term, liquid investments until they are used for their stated purpose. We have not determined the amount of net proceeds to be used specifically for such purposes. As a result, management will retain broad discretion over the allocation of net proceeds.

DESCRIPTION OF THERMO FISHER DEBT SECURITIES

Thermo Fisher may offer debt securities, which may be senior or subordinated. In this Description of Thermo Fisher Debt Securities, we refer to the senior debt securities and the subordinated debt securities that Thermo Fisher issues 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. References to Thermo Fisher and the Issuer in this Description of Thermo Fisher Debt Securities mean Thermo Fisher Scientific Inc. excluding, unless the context otherwise requires or as otherwise expressly stated, its subsidiaries.

Thermo Fisher may issue senior debt securities from time to time, in one or more series under a senior indenture, dated November 20, 2009, between it and The Bank of New York Mellon Trust Company, N.A., which we refer to as the senior trustee. Thermo Fisher may issue subordinated debt securities from time to time, in one or more series under a subordinated indenture to be entered into between Thermo Fisher 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 or defined terms of 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.

The indentures do not limit the amount of debt securities that Thermo Fisher 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 the Issuer and may be payable in any currency or currency unit designated by it or in amounts determined by reference to an index.

General

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

The debt securities will be the Issuer's 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 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;

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 the Issuer's option;

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

provisions for a sinking fund or other analogous fund;

the form of the debt securities;

if other than denominations of \$1,000 or any integral multiple 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 which 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 which 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 all additional, eliminated or changed terms that will apply to the debt securities.

The Issuer 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 and having the same terms as such series (or the same terms 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.

You may present debt securities for exchange and you may present debt securities for transfer in the manner, at the places and subject to the restrictions set forth in the debt securities and the applicable prospectus supplement. The Issuer 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. U.S. federal income tax considerations applicable to any such discounted debt securities or to certain debt securities issued at par which are treated as having been issued at a discount for U.S. federal income tax purposes will be described in the applicable prospectus supplement.

The Issuer 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 such dates, depending on the value on such 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

Limitations on Liens. The Issuer will not, and will not permit any of its 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 the Issuer, any of its subsidiaries or any indebtedness of any other Person, unless the Issuer 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 the Issuer shall so determine, any other indebtedness of the Issuer or any subsidiary of the Issuer 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 the Issuer first issues 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 the Issuer or any subsidiary of the Issuer or the Issuer or one or more of its 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 the Issuer or such subsidiary;

(c) Liens on property existing at the time of acquisition thereof by the Issuer or any subsidiary of the Issuer, 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 the Issuer or such subsidiary;

(d) Liens to secure indebtedness incurred prior to, at the time of or within 18 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 the Issuer or to one or more of its subsidiaries;

(g) Liens incurred or assumed in connection with the issuance of revenue bonds the interest on which is exempt from federal taxation pursuant to Section 103 of the Internal Revenue Code;

(h) Liens created, incurred or assumed in connection with an industrial revenue bond, pollution control bond or similar financing between the Issuer or any subsidiary of the Issuer 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 the Issuer and its 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 10% of Consolidated Net Assets.

In order to constitute a *Principal Property* under the senior indenture, a property must have a book value in excess of 3% of the most recently calculated Consolidated Net Assets. Based on Consolidated Net Assets as of April 2, 2016, a property would only constitute a *Principal Property* if it had a book value in excess of approximately \$814 million. As of the date of this prospectus, neither the Issuer nor any of its subsidiaries owns any *Principal Property* as defined. See *Definition of Certain Terms*.

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

(a) the Issuer 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;

(b) the Issuer applies, during the six months following 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 *Limitations on Liens* does not exceed 10% of *Consolidated Net Assets*.

Certain Other Covenants. The senior indenture contains certain other covenants regarding, among other matters, corporate existence and reports to holders of senior debt securities. Unless indicated 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 the Issuer's credit quality or in the event of a takeover, recapitalization or highly leveraged or similar transaction involving the Issuer or any of its affiliates that may adversely affect such holders.

Consolidation, Merger and Sale of Assets. Unless indicated otherwise in a prospectus supplement, the Issuer will not consolidate with, merge with or into, or sell, convey, transfer, lease or otherwise dispose of all or substantially all of its and its 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 the Issuer, unless:

the Issuer shall be the continuing Person, or the Person (if other than the Issuer) formed by such consolidation or into which the Issuer is 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, or, subject to certain conditions (including an obligation to pay additional amounts in respect of withholding taxes), a jurisdiction outside the United States, and shall expressly assume, by a supplemental indenture, executed and delivered to the senior trustee, all of the Issuer's 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

the Issuer delivers 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 herein relating to such transaction have been complied with.

The Surviving Person will succeed to, and be substituted for, the Issuer under the senior indenture and the senior debt securities and, except in the case of a lease, the Issuer 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 the Issuer indicates otherwise in a prospectus supplement with respect to a particular series of senior debt securities, the senior debt securities will not contain any provisions that may afford holders of the senior debt securities protection in the event the Issuer has 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 as in effect on the date of the senior indenture.

Consolidated Net Assets means the consolidated total assets of the Issuer and its subsidiaries as reflected in its most recent balance sheet prepared in accordance with U.S. GAAP as in effect at the time of such determination, 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) acquisition-related intangible assets in accordance with U.S. GAAP in effect at the time of such determination. Consolidated Net Assets includes goodwill of the Issuer and its subsidiaries.

Funded Debt means, as of any date of determination, the Issuer's 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 as in effect on the date of the senior indenture, 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.

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.

Principal Property means any single parcel of real property or any permanent improvement thereon (i) owned by the Issuer or any of its subsidiaries located in the United States, including the Issuer's 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 3% of the most recently calculated Consolidated Net Assets. Principal Property does not include any property that the Issuer's board of directors has determined not to be of material importance to the business conducted by the Issuer and its subsidiaries, taken as a whole. As of the date of this prospectus, none of the Issuer's current properties or those of its subsidiaries constitutes a Principal Property.

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

Sale and Leaseback Transaction means any arrangement with any Person providing for the leasing by the Issuer or any subsidiary of any Principal Property which has been or is to be sold or transferred by the Issuer or such subsidiary to such Person, excluding (1) temporary leases for a term, including renewals at the option of the lessee, of not more than three years, (2) leases between the Issuer and a subsidiary or between subsidiaries of the Issuer, (3) leases of a Principal Property executed by the time of, or within 12 months after the latest of, the acquisition, the completion of construction or improvement, or the commencement of commercial operation of the property, and (4) arrangements pursuant to any provision of law with an effect similar to the former Section 168(f)(8) of the Internal Revenue Code of 1954, as amended.

U.S. GAAP means 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 the Issuer to observe or perform any other term of the senior indenture for a period of 90 days after it receives a notice of default stating that it is in breach. The notice must be sent by either the senior trustee or holders of 25% of the principal amount of the senior debt securities of the affected series;

(1) Failure by the Issuer to pay indebtedness for money it borrowed or guaranteed the payment of in an aggregate principal amount of at least \$100 million at the later of final maturity and the expiration of any related applicable grace period and such defaulted payment shall not have been made, waived or extended within 30 days or (2) acceleration of the maturity of any indebtedness for money that the

Issuer borrowed or guaranteed the payment of in an aggregate principal amount of at least \$100 million, if such indebtedness has not been discharged in full or such acceleration has not been rescinded or annulled within 30 days; *provided, however*, that, if the default under the instrument is cured by the Issuer, or waived by the holders of the indebtedness, in each case as permitted by the governing instrument, then the Event of Default under the senior indenture governing the senior debt securities caused by such default will be deemed likewise to be cured or waived;

Certain events in bankruptcy, insolvency or reorganization with respect to the Issuer; 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's board of directors, executive committee, or a trust committee of directors or trustees and/or certain officers of the trustee in good faith determine it 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 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 the Issuer, the principal amount of all the senior debt securities will be automatically accelerated, without any action by the senior trustee or any holder. The holders of a majority in aggregate principal amount of the senior debt securities of the affected series may by written notice to the Issuer and the senior trustee may, on behalf of the holders of the senior debt securities of the affected series, rescind an acceleration or waive any existing Default or Event of Default and its consequences under the senior indenture, if the rescission would not conflict with any judgment or decree, except a continuing Default or Event of Default in the payment of principal of, premium on, if any, or interest, if any, on, such senior debt securities.

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 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 cost and other liabilities of taking that action.

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.

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

Satisfaction and Discharge

The senior indenture will cease to be of further effect and the senior trustee, upon the Issuer's demand and at its expense, will execute appropriate instruments acknowledging the satisfaction and discharge of the senior indenture upon compliance with certain conditions, including:

the Issuer having paid all sums payable by it under the senior indenture, as and when the same shall be due and payable;

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

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 the Issuer 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

the Issuer having delivered to the senior trustee an officer's certificate and an opinion of counsel, each stating that these conditions have been satisfied.

Under current U.S. federal tax law, the deposit and the Issuer's legal release from the senior debt securities would be treated as though it 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 the Issuer. 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. The Issuer can legally release itself from any payment or other obligations on the debt securities of any series (called *full defeasance*) if the following conditions are met:

The Issuer deposits 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 the Issuer make the above deposit without causing you to be taxed on the debt securities any differently than if the Issuer did not make the deposit and instead repaid the debt securities itself when due. Under current U.S. federal tax law, the deposit and the Issuer's legal release from the debt securities would be treated as though the Issuer 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 the Issuer.

The Issuer delivers to the trustee a legal opinion of its counsel confirming the tax law change or ruling described above.

If the Issuer ever did accomplish 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 the Issuer for repayment in the event of any shortfall.

However, even if the Issuer makes the deposit in trust and opinion delivery arrangements discussed above, a number of its obligations relating to the debt securities will remain. These include the Issuer's 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. Without any change of current U.S. federal tax law, the Issuer 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 Issuer must do the following:

The Issuer must 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.

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

If the Issuer accomplishes covenant defeasance, you can still look to it 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 the Issuer's 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 the Issuer 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;

reduce the amount of principal payable upon acceleration of the maturity of the senior debt securities following an Event of Default;

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

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. The following is a list of those types of changes:

cure any ambiguity, defect or inconsistency;

evidence the succession of another entity to the Issuer's obligations under the senior indenture;

provide for uncertificated debt securities in addition to or in place of certificated debt securities;

add to the covenants for the benefit of holders of outstanding debt securities or to surrender any right or power the Issuer has under the senior indenture;

add additional events of default;

secure senior debt securities of any series;

make any change that does not adversely affect the rights of any holder of senior debt securities in any material respect;

issue additional 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, as amended (the *Trust Indenture Act*).

Nor does the Issuer need any approval to make changes that affect only senior debt securities to be issued under the senior indenture after the changes take effect. The Issuer 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, the Issuer needs 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.

The same vote would be required for the Issuer to obtain a waiver of a past default. However, the Issuer 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 the Issuer obtains 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 the Issuer has 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.

The Issuer 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 the Issuer or the senior trustee sets 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 the Issuer may specify (or as the senior trustee may specify, if it set the record date). The Issuer may shorten or lengthen (but not beyond 180 days) 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 the Issuer 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 its 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 Bank of New York Mellon Trust Company, N.A., as senior trustee under the senior indenture, has been appointed by the Issuer 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 the Issuer in the ordinary course of their business.

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 the Issuer or any of its subsidiaries, to obtain payment of claims in certain cases or to realize on certain property received by the senior trustee 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 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 the Issuer. Thereafter, any right of any holder of senior debt securities to such funds shall be enforceable only against the Issuer, 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 the Issuer's 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 the Issuer's senior indebtedness, it may not make any payment of principal of, or premium, if any, or interest on the subordinated debt securities, except under limited circumstances set forth in the subordinated indenture. In addition, upon any payment or distribution of the Issuer's 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 its senior indebtedness. Because of this subordination, if the Issuer dissolves or otherwise liquidates, holders of its subordinated debt securities may receive less, ratably, than holders of its 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;

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. The Issuer's senior debt securities constitute senior indebtedness for purposes of the subordinated indenture.

DESCRIPTION OF THERMO FISHER INTERNATIONAL DEBT SECURITIES

Thermo Fisher International may offer senior debt securities that are fully and unconditionally guaranteed by Thermo Fisher. 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. References to Thermo Fisher International and Issuer in this Description of Thermo Fisher International Debt Securities mean Thermo Fisher Scientific (Finance I) B.V., excluding, unless the context otherwise requires or as otherwise expressly stated, its subsidiaries and affiliates and references to Thermo Fisher or the Guarantor mean Thermo Fisher Scientific Inc., excluding, unless the context otherwise requires or as otherwise expressly stated, its subsidiaries.

Thermo Fisher International may issue senior debt securities from time to time, in one or more series under an indenture to be entered into among it, Thermo Fisher and The Bank of New York Mellon Trust Company, N.A., which we refer to as the trustee. The form of indenture is filed as an exhibit to the registration statement of which this prospectus forms a part. This prospectus briefly outlines some of the provisions of the indenture. The following summary of the material provisions of the indenture is qualified in its entirety by the provisions of the indenture, including definitions of certain terms used in the indenture. Wherever we refer to particular sections or defined terms of the indenture, those sections or defined terms are incorporated by reference in this prospectus or the applicable prospectus supplement. You should review the indenture that is filed as an exhibit to the registration statement of which this prospectus forms a part for additional information.

The indenture will not limit the amount of debt securities that Thermo Fisher International may issue. The indenture will provide that debt securities may be issued up to an aggregate principal amount authorized from time to time by the Issuer and may be payable in any currency or currency unit designated by the Issuer or in amounts determined by reference to an index.

General

The debt securities will constitute the Issuer's unsecured and unsubordinated general obligations, will be fully and unconditionally guaranteed by Thermo Fisher and will rank *pari passu* with the Issuer's other unsecured and unsubordinated obligations. The debt securities will be the Issuer's 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. Thermo Fisher International is a finance subsidiary of Thermo Fisher and conducts no independent operations of its own other than financing activities. Thermo Fisher is a holding company that conducts substantially all of its operations through its subsidiaries, and, as a result, the guarantee of debt securities will be effectively subordinated to the creditors of Thermo Fisher's other subsidiaries. This means that all claims of creditors (including trade creditors) of Thermo Fisher's other subsidiaries will have priority with respect to the assets of such subsidiaries over Thermo Fisher's claims (and therefore the claims of its creditors, including holders of debt securities guaranteed by Thermo Fisher).

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;

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;

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 the Issuer's option;

provisions for a sinking fund or other analogous fund;

the form of the debt securities;

if other than denominations of \$100,000 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 which 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 types of global securities to be issued, the terms upon which the debt securities will be exchanged for definitive form, the depository 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 which 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 trustee;

the terms of the guarantee, including any corresponding changes to the provisions of the indenture then in effect; and

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

The Issuer 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 and having the same terms as such series (or the same terms 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.

You may present debt securities for exchange and you may present debt securities for transfer in the manner, at the places and subject to the restrictions set forth in the debt securities and the applicable prospectus supplement. The Issuer 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 indenture.

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. U.S. federal income tax considerations applicable to any such discounted debt securities or to certain debt securities issued at par which are treated as having been issued at a discount for U.S. federal income tax purposes will be described in the applicable prospectus supplement.

The Issuer 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 such dates, depending on the value on such 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.

Guarantee

Thermo Fisher will fully and unconditionally guarantee the full and punctual payment of principal of and premium, if any, and interest on the debt securities on a senior unsecured basis, when and as the same become due and payable, whether on a maturity date, by declaration of acceleration, upon redemption, repurchase or otherwise, and all other obligations of Thermo Fisher International under the indenture.

Under certain circumstances, Thermo Fisher may assume all of the Issuer's obligations under the indenture and the debt securities.

Redemption Upon Changes in Withholding Taxes

Unless otherwise provided in the applicable prospectus supplement, Thermo Fisher International may redeem all, but not less than all, of the debt securities of any series under the following conditions:

if there is an amendment to, or change in, the laws, regulations, rulings or treaties of The Netherlands, the United States or other jurisdiction in which Thermo Fisher International or Thermo Fisher or, in each case, any successor thereof (including a continuing Person formed by a consolidation with Thermo Fisher International or Thermo Fisher, into which Thermo Fisher International or Thermo Fisher is merged, or that acquires or leases all or substantially all of the property and assets of Thermo Fisher International or Thermo Fisher) may be organized, as applicable, or any political subdivision thereof or therein having the power to tax (a *Taxing Jurisdiction*), or any change in the application or official interpretation of such laws, regulations, rulings or treaties, including any action taken by, or a change in published administrative practice of, a taxing authority or a holding by a court of competent jurisdiction, regardless of whether such action, change or holding is with respect to Thermo Fisher International or Thermo Fisher;

as a result of such amendment or change, Thermo Fisher International or Thermo Fisher becomes, or there is a material probability that Thermo Fisher International or Thermo Fisher will become, obligated to pay Additional Amounts as defined below in Payment of Additional Amounts, on the next payment date with respect to the debt securities of such series;

the obligation to pay Additional Amounts cannot be avoided through Thermo Fisher International's or Thermo Fisher's commercially reasonable measures, not including substitution of the obligor of the debt securities;

Thermo Fisher International delivers to the trustee:

a certificate of Thermo Fisher International or Thermo Fisher, as the case may be, stating that the obligation to pay Additional Amounts cannot be avoided by Thermo Fisher International or Thermo Fisher as the case may be, taking commercially reasonable measures available to it; and

a written opinion of independent tax counsel to Thermo Fisher International or Thermo Fisher, as the case may be, of recognized standing to the effect that Thermo Fisher International or Thermo Fisher, as the case may be, has, or there is a material probability that it will become obligated, to pay Additional Amounts as a result of a change, amendment, official interpretation or application described above and that Thermo Fisher International or Thermo Fisher, as the case may be, cannot avoid the payment of such Additional Amounts by taking commercially reasonable measures available to it; and

following the delivery of the certificate and opinion described in the previous bullet point, Thermo Fisher International provides notice of redemption not less than 30 days, but not more than 60 days, prior to the date of redemption. The notice of redemption cannot be given more than 60 days before the earliest date on which Thermo Fisher International or Thermo Fisher would otherwise be, or there is a material probability that it would otherwise be, required to pay Additional Amounts.

Upon the occurrence of each of the bullet points above, Thermo Fisher International may redeem the debt securities of such series at a redemption price equal to 100% of the principal amount thereof, together with accrued and unpaid interest, if any, to the redemption date.

Payment of Additional Amounts

Unless otherwise required by law, neither Thermo Fisher International nor Thermo Fisher will deduct or withhold from payments made by Thermo Fisher International or Thermo Fisher under or with respect to the debt securities and the guarantees on account of any present or future taxes, duties, levies, imposts, assessments or governmental charges of whatever nature imposed or levied by or on behalf of any Taxing Jurisdiction (*Taxes*). In the event that Thermo Fisher International or Thermo Fisher is required to withhold or deduct any amount for or on account of any Taxes from any payment made under or with respect to any debt securities or guarantee, as the case may be, Thermo Fisher International or Thermo Fisher, as the case may be, will pay such additional amounts (*Additional Amounts*) so that the net amount received by each holder of debt securities (including Additional Amounts) after such withholding or deduction will equal the amount that such holder would have received if such Taxes had not been required to be withheld or deducted.

Additional Amounts will not be payable with respect to a payment made to a holder of debt securities or a holder of beneficial interests in global securities where such holder is subject to taxation on such payment by a relevant Taxing Jurisdiction for any reason other than such holder's mere ownership of the debt securities or for or on account of:

any Taxes that are imposed or withheld solely because such holder (or the beneficial owner for whose benefit such holder holds such debt securities) or a fiduciary, settlor, beneficiary, member, shareholder or other equity owner of, or possessor of a power over, such holder (or beneficial owner) if such holder (or beneficial owner) is an estate, trust, partnership, limited liability company, corporation or other entity:

is or was present or engaged in, or is or was treated as present or engaged in, a trade or business in the Taxing Jurisdiction or has or had a permanent establishment in the Taxing Jurisdiction (in each case, other than the mere fact of ownership of such securities, without another presence or business in such Taxing Jurisdiction);

has or had any present or former connection (other than the mere fact of ownership of such debt securities) with the Taxing Jurisdiction imposing such Taxes, including being or having been a national citizen or resident thereof, being treated as being or having been a resident thereof or being or having been physically present therein;

with respect to any withholding Taxes imposed by the United States, is or was with respect to the United States a personal holding company, a passive foreign investment company, a controlled foreign corporation, a foreign private foundation or other foreign tax exempt organization or corporation that has accumulated earnings to avoid United States federal income tax;

actually or constructively owns or owned 10% or more of the total combined voting power of all classes of stock of Thermo Fisher International or Thermo Fisher within the meaning of section 871(h)(3) of the U.S. Internal Revenue Code of 1986, as amended (the *Code*); or

is or was a bank receiving payments on an extension of credit made pursuant to a loan agreement entered into in the ordinary course of its trade or business within the meaning of section 881(c)(3) of the Code;

any estate, inheritance, gift, sales, transfer, excise, personal property or similar Taxes imposed with respect to the debt securities, except as otherwise provided in the indenture;

any Taxes imposed solely as a result of the presentation of such debt securities (where presentation is required) for payment on a date more than 15 days after the date on which such payment became due and payable or the date on which payment thereof is duly provided for, whichever is later, except to the extent that the beneficiary or holder thereof would have been entitled to the payment of Additional Amounts had the debt securities been presented for payment on any date during such 15-day period;

any Taxes imposed or withheld solely as a result of the failure of such holder or any other person to comply with applicable certification, information, documentation or other reporting requirements concerning the nationality, residence, identity or connection with the Taxing Jurisdiction of such holder, if such compliance is required by statute, regulation, ruling or administrative practice of the relevant Taxing Jurisdiction or by any applicable tax treaty to which the relevant Taxing Jurisdiction is a party as a precondition to relief or exemption from such Taxes;

with respect to withholding Taxes imposed by the United States, any such Taxes imposed by reason of the failure of such holder to fulfill the statement requirements of sections 871(h) or 881(c) of the Code;

any Taxes that are payable by any method other than withholding or deduction by Thermo Fisher International or Thermo Fisher or any paying agent from payments in respect of such debt securities;

any Taxes required to be withheld by any paying agent from any payment in respect of any debt securities if such payment can be made without such withholding by at least one other paying agent;

any withholding or deduction for Taxes which would not have been imposed if the relevant debt securities had been presented to another paying agent in a member state of the European Union as of the date of the indenture;

any withholding or deduction required pursuant to sections 1471 through 1474 of the Code, any regulations or agreements thereunder, official interpretations thereof, any intergovernmental agreement, or any law, rule, guidance or administrative practice implementing an intergovernmental agreement entered into in connection with such sections of the Code; or

any combination of the above conditions.

Additional Amounts also will not be payable to any holder of debt securities or the holder of a beneficial interest in a global security that is a fiduciary, partnership, limited liability company or other fiscally transparent entity, or to such holder that is not the sole holder of such security or holder of such beneficial interests in such security, as the case may be. The exception, however, will apply only to the extent that a beneficiary or settlor with respect to the fiduciary, or a beneficial owner or member of the partnership, limited liability company or other fiscally transparent entity, would not have been entitled to the payment of an Additional Amount had the beneficiary, settlor, beneficial owner or member received directly its beneficial or distributive share of the payment.

Each of Thermo Fisher International and Thermo Fisher, as applicable, also:

will make such withholding or deduction of Taxes;

will remit the full amount of Taxes so deducted or withheld to the relevant Taxing Jurisdiction in accordance with all applicable laws;

will use its commercially reasonable efforts to obtain from each Taxing Jurisdiction imposing such Taxes certified copies of tax receipts evidencing the payment of any Taxes so deducted or withheld; and

upon request, will make available to the holders of the debt securities, within 90 days after the date the payment of any Taxes deducted or withheld is due pursuant to applicable law, certified copies of tax receipts evidencing such payment by Thermo Fisher International or Thermo Fisher or if, notwithstanding Thermo Fisher International's or Thermo Fisher's efforts to obtain such receipts, the same are not obtainable, other evidence of such payments.

At least 30 days prior to each date on which any payment under or with respect to the debt securities of a series or guarantees is due and payable, if Thermo Fisher International or Thermo Fisher will be obligated to pay Additional Amounts with respect to such payment, Thermo Fisher International or Thermo Fisher will deliver to the trustee an officers' certificate stating the fact that such Additional Amounts will be payable, the amounts so payable and such other information as is necessary to enable the trustee to pay such Additional Amounts to holders of such debt securities on the payment date.

In addition, Thermo Fisher International will pay any stamp, issue, registration, documentary or other similar taxes and duties, including interest, penalties and Additional Amounts with respect thereto, payable in The Netherlands or the United States or any political subdivision or taxing authority of or in the foregoing in respect of the creation, issue, offering, enforcement, redemption or retirement of the debt securities.

The foregoing provisions shall survive any termination or the discharge of each indenture and shall apply to any jurisdiction in which Thermo Fisher International or Thermo Fisher or any successor to Thermo Fisher International or Thermo Fisher, as the case may be, is organized or is engaged in business for tax purposes or any political subdivisions or taxing authority or agency thereof or therein.

Whenever in an indenture, any debt securities, any guarantee or in this Description of Thermo Fisher International Debt Securities there is mentioned, in any context, the payment of principal, premium, if any, redemption price, interest or any other amount payable under or with respect to any debt securities, such mention includes the payment of Additional Amounts to the extent payable in the particular context.

Certain Terms of the Debt Securities

Certain Covenants

Limitations on Liens. Thermo Fisher will not, and will not permit any of its 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 Thermo Fisher, any of its subsidiaries or any indebtedness of any

other Person, unless Thermo Fisher or such subsidiary also secures all payments due under the debt securities, the guarantees of the debt securities and guarantees of all debt securities of any series having the benefit of this covenant (together with, if Thermo Fisher shall so determine, any other indebtedness of Thermo Fisher or any subsidiary of Thermo Fisher then existing or thereafter created ranking equally with the debt securities, the guarantees of the debt securities or such subsidiary indebtedness), on an equal and ratable basis with such other indebtedness so secured (or, in the case of indebtedness subordinated to the debt securities, the guarantees of the debt securities or such subsidiary indebtedness, prior or senior thereto, with the same

relative priority as the debt securities, the guarantees of the debt securities or such subsidiary indebtedness will have with respect to such subordinated indebtedness) for so long as such other indebtedness shall be so secured. The indenture contains the following exceptions to the foregoing prohibition:

- (a) Liens existing on the date when the Issuer first issues the debt securities pursuant to the 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 Thermo Fisher or any of its subsidiaries or Thermo Fisher or one or more of its 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 Thermo Fisher or such subsidiary;
- (c) Liens on property existing at the time of acquisition thereof by Thermo Fisher or any of its subsidiaries, 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 Thermo Fisher or such subsidiary;
- (d) Liens to secure indebtedness incurred prior to, at the time of or within 18 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 of Thermo Fisher owing to Thermo Fisher or to one or more of Thermo Fisher's subsidiaries;
- (g) Liens incurred or assumed in connection with the issuance of revenue bonds the interest on which is exempt from federal taxation pursuant to Section 103 of the Code;
- (h) Liens created, incurred or assumed in connection with an industrial revenue bond, pollution control bond or similar financing between Thermo Fisher or any subsidiary of Thermo Fisher 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 Thermo Fisher and its 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 10% of Thermo Fisher's Consolidated Net Assets.

In order to constitute a *Principal Property* under the indenture, a property must have a book value in excess of 3% of Thermo Fisher's most recently calculated Consolidated Net Assets. Based on Consolidated Net Assets as of April 2, 2016, a property would only constitute a *Principal Property* if it had a book value in excess of approximately \$814 million. As of the date of this prospectus, neither Thermo Fisher nor any of its subsidiaries owns any *Principal Property* as defined. See *Definition of Certain Terms*.

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

- (a) Thermo Fisher 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;
- (b) Thermo Fisher or any subsidiary of Thermo Fisher applies, during the six months following 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 first issuance of the debt securities under the indenture, 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 *Limitations on Liens* does not exceed 10% of Consolidated Net Assets.

Business Activities. Thermo Fisher International will not engage in any activities or take any action that would be inconsistent with the definition of *finance subsidiary* within the meaning of Rule 3-10 of Regulation S-X under the Securities Act.

Certain Other Covenants. The indenture contains certain other covenants regarding, among other matters, corporate existence and reports to holders of debt securities. Unless indicated otherwise in a prospectus supplement, the 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 indenture do not afford holders of debt securities issued thereunder protection in the event of a sudden or significant decline in the Issuer's credit quality or the credit quality of Thermo Fisher or in the event of a takeover, recapitalization or highly leveraged or similar transaction involving the Issuer, Thermo Fisher or any of its affiliates that may adversely affect such holders.

Consolidation, Merger and Sale of Assets. Unless indicated otherwise in a prospectus supplement, the Issuer will not consolidate with, merge with or into, or sell, convey, transfer, lease or otherwise dispose of all or substantially all of its or its 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 it, unless:

- (1) the continuing Person is Thermo Fisher International or Thermo Fisher or
- (2) the continuing Person formed by such consolidation or into which the Issuer is 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, or a Person validly existing under the laws of Switzerland, the United Kingdom, The Netherlands or any other member state of the European Union as of the date of the indenture, and shall expressly assume, by a supplemental indenture, executed and delivered to the trustee, all of the Issuer's obligations under the indenture and the debt securities;

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

the Issuer delivers to the 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 herein relating to such transaction have been complied with.

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

In addition, unless indicated otherwise in a prospectus supplement, Thermo Fisher will not consolidate with, merge with or into, or sell, convey, transfer, lease or otherwise dispose of all or substantially all of its or its 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 it, unless:

(1) the continuing Person is Thermo Fisher or (2) the continuing Person formed by such consolidation or into which Thermo Fisher is merged or that acquired or leased such property and assets, shall be a Person validly existing under the laws of the United States of America or any jurisdiction thereof, or a jurisdiction outside of the United States, and shall expressly assume, by a supplemental indenture, executed and delivered to the trustee, all of Thermo Fisher's obligations under the indenture and the debt securities;

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

Thermo Fisher delivers to the 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 herein relating to such transaction have been complied with.

No Protection in the Event of a Change of Control. Unless indicated otherwise in a prospectus supplement with respect to a particular series of debt securities, the debt securities will not contain any provisions that may afford holders of the debt securities protection in the event the Issuer has or Thermo Fisher has 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 certain 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 as in effect on the date of the indenture.

Consolidated Net Assets means the consolidated total assets of Thermo Fisher and its subsidiaries as reflected in the most recent balance sheet of Thermo Fisher prepared in accordance with U.S. GAAP as in effect at the time of such determination, 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) acquisition-related intangible assets in accordance with U.S. GAAP as in effect at the time of such determination. Consolidated Net Assets includes the goodwill of Thermo Fisher and its subsidiaries.

Funded Debt means, as of any date of determination, Thermo Fisher's indebtedness or the indebtedness of a subsidiary of Thermo Fisher maturing by its terms more than one year after its creation and indebtedness classified as long-term debt under U.S. GAAP as in effect on the date of the indenture, and in each case ranking

at least *pari passu* with the debt securities, the Thermo Fisher guarantee of the debt securities or the other senior indebtedness of such subsidiary of Thermo Fisher.

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.

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 indenture.

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

Principal Property means any single parcel of real property or any permanent improvement thereon (i) owned by Thermo Fisher or any of its subsidiaries located in the United States, including Thermo Fisher's 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 3% of Thermo Fisher's most recently calculated Consolidated Net Assets. Principal Property does not include any property that Thermo Fisher's board of directors has determined not to be of material importance to the business conducted by Thermo Fisher and its subsidiaries, taken as a whole. As of the date of this prospectus, none of Thermo Fisher's current properties or those of its subsidiaries constitutes a Principal Property.

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

Sale and Leaseback Transaction means any arrangement with any Person providing for the leasing by Thermo Fisher or any subsidiary of any Principal Property which has been or is to be sold or transferred by Thermo Fisher or such subsidiary to such Person, excluding (1) temporary leases for a term, including renewals at the option of the lessee, of not more than three years, (2) leases between Thermo Fisher and a subsidiary or between subsidiaries of Thermo Fisher, (3) leases of a Principal Property executed by the time of, or within 12 months after the latest of, the acquisition, the completion of construction or improvement, or the commencement of commercial operation of the property and (4) arrangements pursuant to any provision of law with an effect similar to the former Section 168(f)(8) of the Internal Revenue Code of 1954, as amended.

U.S. GAAP means 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 indenture defines an Event of Default with respect to any series of debt securities issued pursuant to the indenture. Events of Default on the debt securities are any of the following:

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

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

Failure by the Issuer or Thermo Fisher to observe or perform any other term of the indenture for a period of 90 days after the Issuer or Thermo Fisher, as applicable, receives a notice of default stating the Issuer or Thermo Fisher is in breach. The notice must be sent by either the trustee or holders of 25% of the principal amount of the debt securities of the affected series;

(1) Failure by the Issuer or Thermo Fisher to pay indebtedness for money the Issuer or Thermo Fisher borrowed or guaranteed the payment of in an aggregate principal amount of at least \$150 million at the later of final maturity and the expiration of any related applicable grace period and such defaulted payment shall not have been made, waived or extended within 30 days or (2) acceleration of the maturity of any indebtedness for money the Issuer or Thermo Fisher borrowed or guaranteed the payment of in an aggregate principal amount of at least \$150 million, if such indebtedness has not been discharged in full or such acceleration has not been rescinded or annulled within 30 days; *provided, however*, that, if the default under the instrument is cured by the Issuer or Thermo Fisher, or waived by the holders of the indebtedness, in each case as permitted by the governing instrument, then the Event of Default under the indenture governing the debt securities caused by such default will be deemed likewise to be cured or waived;

Certain events in bankruptcy, insolvency or reorganization with respect to the Issuer or Thermo Fisher;

The guarantee of the obligations under the debt securities is determined in a final, non-appealable judgment to be unenforceable or invalid or such guarantee is asserted in writing by Thermo Fisher International or Thermo Fisher to no longer be in full force and effect and enforceable in accordance with its terms; and

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

An Event of Default under one series of debt securities issued pursuant to the indenture does not necessarily constitute an Event of Default under any other series of debt securities. The indenture provides that the trustee may withhold notice to the holders of any series of debt securities issued thereunder of any default if the trustee's board of directors, executive committee, or a trust committee of directors or trustees and/or certain officers of the trustee in good faith determine it in the interest of such holders to do so.

Remedies If an Event of Default Occurs. The indenture provides that if an Event of Default has occurred with respect to a series of debt securities and has not been cured, the trustee or the holders of not less than 25% in principal amount of the debt securities of that series may declare the entire principal amount of all the 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 the Issuer or Thermo Fisher, the principal amount of all the debt securities will be automatically accelerated, without any action by the trustee or any holder. The holders of a majority in aggregate principal amount of the debt securities of the affected series may by written notice to the Issuer, Thermo Fisher and the trustee may, on behalf of the holders of the debt securities of the affected series, rescind an acceleration or waive any existing Default or Event of Default and its consequences under the indenture, if the rescission would not conflict with any judgment or decree, except a continuing Default or Event of Default in the payment of principal of, premium on, if any, or interest, if any, on, such debt securities.

Except as may otherwise be provided in the indenture in cases of default, where the trustee has some special duties, the trustee is not required to take any action under the indenture at the request of any holders unless the holders offer the trustee protection from expenses and liability (called an *indemnity*). If indemnity satisfactory to the trustee is provided, the holders of a majority in principal amount of the outstanding 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 trustee. Subject to certain exceptions contained in the indenture, these majority holders may also direct the trustee in performing any other action under the indenture.

Before you bypass the 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 debt securities, the following must occur:

You must give the trustee written notice that an Event of Default has occurred and remains uncured.

The holders of 25% in principal amount of all outstanding debt securities of the affected series must make a written request that the trustee take action because of the Event of Default, and must offer reasonable indemnity to the trustee against the cost and other liabilities of taking that action.

The 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 trustee has not received a contrary instruction from holders of a majority in principal amount of all outstanding debt securities of that series.

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

The Issuer will furnish to the trustee every year a written statement of one of its officers certifying that to such officer's knowledge the Issuer is in compliance with the indenture and the debt securities, or else specifying any default.

Satisfaction and Discharge

The indenture will cease to be of any further effect with respect to a series of debt securities and the related guarantee, and the trustee, upon the Issuer's demand and at its expense, will execute appropriate instruments acknowledging the satisfaction and discharge of the indenture with respect to such debt securities and the related guarantee if:

the Issuer or Thermo Fisher have delivered to the trustee for cancellation all such debt securities theretofore authenticated under the indenture; or

all debt securities of that series not theretofore delivered to the trustee for cancellation shall have become due and payable or by their terms will become due and payable within one year or are to be called for redemption within one year and, in each such case, the Issuer or Thermo Fisher shall have deposited with the trustee sufficient cash or U.S. government or U.S. government agency notes or bonds (or equivalent government obligations in the case of debt securities denominated in a currency other than U.S. dollars) that will generate enough cash to pay, at maturity or upon redemption, all such debt securities; and

if, in either case, the Issuer or Thermo Fisher also pay or cause to be paid all sums payable under the indenture with respect to such debt securities, and the Issuer or Thermo Fisher delivers to the trustee an officer's certificate and an opinion of counsel, each stating that these conditions with respect to such debt securities have been satisfied.

Under current U.S. federal tax law, the deposit and the Issuer's legal release from the debt securities would be treated as though it 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 the Issuer. Purchasers of the 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 and the related guarantee issued under the indenture.

Full Defeasance. The Issuer can legally release itself and Thermo Fisher from any payment or other obligations on the debt securities of any series and the related guarantee (called *full defeasance*) if the following conditions are met:

The Issuer deposits or Thermo Fisher deposits 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 (or equivalent government obligations in the case of debt securities denominated in a currency other than U.S. dollars) 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 the Issuer or Thermo Fisher make the above deposit without causing you to be taxed on the debt securities any differently than if the Issuer or Thermo Fisher did not make the deposit and instead repaid the debt securities themselves when due. Under current U.S. federal tax law, the deposit and the Issuer's and Thermo Fisher's legal release from the debt securities and the related guarantee would be treated as though the Issuer 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 the Issuer.

The Issuer delivers or Thermo Fisher delivers to the trustee a legal opinion of counsel confirming the tax law change or ruling described above.

If the Issuer ever did accomplish 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 the Issuer or Thermo Fisher for repayment in the event of any shortfall.

However, even if the Issuer makes or Thermo Fisher makes the deposit in trust and opinion delivery arrangements discussed above, a number of obligations relating to the debt securities will remain. These include the 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. Without any change of current U.S. federal tax law, the Issuer or Thermo Fisher can make the same type of deposit described above and be released from some of the covenants on the debt securities of any series and related guarantee. 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 Issuer or Thermo Fisher must do the following:

The Issuer or Thermo Fisher must 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 (or equivalent government obligations in the case of debt securities denominated in a currency other than U.S. dollars) 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.

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

If the Issuer accomplishes covenant defeasance, you can still look to the Issuer or Thermo Fisher for repayment of the debt securities or the related guarantee if there were a shortfall in the trust deposit. In fact, if one of the Events of Default occurred (such as the Issuer's or Thermo Fisher's 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 the Issuer can make to the indenture and the debt securities.

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

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

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

reduce the amount of principal payable upon acceleration of the maturity of the debt securities following an Event of Default;

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

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

release Thermo Fisher from its obligations in respect of the guarantee of any series of debt securities or modify Thermo Fisher's obligations thereunder other than in accordance with the provisions of the indenture;

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

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

modify any other aspect of the provisions dealing with modification and waiver of the indenture, except to increase the percentage required for any modification or to provide that other provisions of the indenture may not be modified or waived without consent of the holder of each debt 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 debt securities. This following is a list of those types of changes:

cure any ambiguity, defect or inconsistency;

evidence the succession of another entity to the Issuer's obligations or the obligations of Thermo Fisher under the indenture;

provide for uncertificated debt securities in addition to or in place of certificated debt securities;

add to the Issuer's covenants or Thermo Fisher's covenants for the benefit of holders of outstanding debt securities or to surrender any right or power the Issuer has or Thermo Fisher has under the indenture;

add additional events of default;

secure debt securities of any series;

make any change that does not adversely affect the rights of any holder of debt securities in any material respect;

issue additional debt securities of any series;

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

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

Nor does the Issuer need any approval to make changes that affect only debt securities to be issued under the indenture after the changes take effect. The Issuer may also make changes or obtain waivers that do not adversely affect the debt securities, even if they affect other debt securities issued under the indenture. In those cases, the Issuer needs only obtain any required approvals from the holders of the affected debt securities.

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

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

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

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

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

Further Details Concerning Voting

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

The Issuer will generally be entitled to set any day as a record date for the purpose of determining the holders of outstanding debt securities that are entitled to vote or take other action under the indenture. In certain limited circumstances, the trustee will be entitled to set a record date for action by holders. If the Issuer or the trustee sets a record date for a vote or other action to be taken by holders of debt securities, that vote or action may be taken only by persons who are holders of outstanding debt securities on the record date and must be taken within 180 days following the record date or another period that the Issuer may specify (or as the trustee may specify, if it sets the record date). The Issuer may shorten or lengthen (but not beyond 180 days) this period from time to time.

No Personal Liability of Incorporators, Stockholders, Officers or Directors

The indenture provides that no recourse shall be had under any obligation, covenant or agreement of the Issuer or Thermo Fisher in the indenture or in any of the debt securities or guarantees or because of the creation of any indebtedness represented thereby, against any of the Issuer's or Thermo Fisher's respective 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 debt securities, waives and releases all such liability.

Concerning the Trustee

The Bank of New York Mellon Trust Company, N.A., as trustee under the indenture, has been appointed by the Issuer as paying agent, registrar and custodian with regard to the debt securities. The trustee or its affiliates may from time to time in the future provide banking and other services to the Issuer in the ordinary course of their business. The trustee also serves as senior trustee under the senior indenture of Thermo Fisher.

The indenture provides that, prior to the occurrence of an Event of Default with respect to the debt securities of a series and after the curing or waiving of all such Events of Default with respect to that series, the trustee will not be liable except for the performance of such duties as are specifically set forth in the indenture. If an event of default has occurred and has not been cured or waived, the trustee will exercise such rights and powers vested in it under the 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 indenture and the provisions of the Trust Indenture Act incorporated by reference therein contain limitations on the rights of the trustee thereunder, should it become a creditor of the Issuer or Thermo Fisher or any of its 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 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 trustee or any paying agent for the payment of principal, interest, premium or additional amounts in respect of the debt securities that remain unclaimed for one year after 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 the Issuer or Thermo Fisher. Thereafter, any right of any holder of debt securities to such funds shall be enforceable only against the Issuer or Thermo Fisher, and the trustee and paying agents will have no liability therefor.

Governing Law

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

DESCRIPTION OF CAPITAL STOCK

The following description of our capital stock is intended as a summary only. This description is based upon, and is qualified by reference to, our third amended and restated certificate of incorporation, as amended by the amendment to our third amended and restated certificate of incorporation (as amended, the *certificate of incorporation*), our bylaws and applicable provisions of Delaware corporate law. This summary is not complete. You should read our certificate of incorporation and bylaws, which are filed as exhibits to the registration statement of which this prospectus forms a part, for the provisions that are important to you. When we refer to *we*, *our*, and *us* in this Description of Capital Stock, we mean Thermo Fisher Scientific Inc. excluding, unless the context otherwise requires or as otherwise expressly stated, our subsidiaries.

Our capital stock consists of 1.2 billion shares of common stock, \$1.00 par value per share, and 50,000 shares of preferred stock, \$100 par value per share. As of April 2, 2016, 393,512,230 shares of common stock and no shares of preferred stock were outstanding.

Common Stock

General

Annual Meeting. Annual meetings of our stockholders are held on the date designated in accordance with our bylaws. Written notice must be mailed to each stockholder entitled to vote not less than ten nor more than 60 days before the date of the meeting. The presence in person or by proxy of the holders of record of a majority of our issued and outstanding shares entitled to vote at such meeting constitutes a quorum for the transaction of business at meetings of the stockholders, unless or except to the extent that the presence of a larger number may be required by our certificate of incorporation or the Delaware General Corporation Law, which we refer to as the DGCL. Special meetings of the stockholders may only be called by the board of directors, the chairman of the board of directors or the chief executive officer. Except as may be otherwise provided by applicable law, our certificate of incorporation or our bylaws, all matters shall be decided by a majority of the votes cast by stockholders entitled to vote thereon at a duly held meeting of stockholders at which a quorum is present. Except as may be otherwise provided by our certificate of incorporation, a nominee shall be elected to the board of directors if the votes cast for such nominee's election exceed the votes cast against, provided that if, on the tenth business day before we mail our notice of meeting to the stockholders, the number of nominees exceeds the number of directors to be elected, the election shall be decided by a plurality.

Voting Rights. Each holder of common stock is entitled to one vote for each share held on all matters to be voted upon by stockholders.

Dividends. The holders of common stock, after any preferences of holders of any preferred stock, are entitled to receive dividends when and if declared by the board of directors out of legally available funds.

Liquidation and Dissolution. If we are liquidated or dissolved, the holders of the common stock will be entitled to share in our assets available for distribution to stockholders in proportion to the amount of common stock they own. The amount available for common stockholders is calculated after payment of liabilities. Holders of any preferred stock will receive a preferential share of our assets before the holders of the common stock receive any assets.

Other Rights. Holders of the common stock have no right to:

convert the stock into any other security;

have the stock redeemed; or

purchase additional stock or to maintain their proportionate ownership interest.

The common stock does not have cumulative voting rights. Holders of shares of the common stock are not required to make additional capital contributions.

Directors Liability

Our certificate of incorporation provides that a member of the board of directors will not be personally liable to us or our stockholders for monetary damages for breaches of their legal duties to us or our stockholders as a director, except to the extent that the DGCL prohibits the elimination or limitation of liability of directors for breaches of fiduciary duty.

Our certificate of incorporation also allows us to indemnify directors and officers to the fullest extent authorized by Delaware law.

Transfer Agent and Registrar

American Stock Transfer & Trust Company is transfer agent and registrar for the common stock.

Provisions of Our Certificate of Incorporation and Bylaws and Delaware Law That May Have Anti-Takeover Effects

Removal of Directors by Stockholders. Our bylaws provide that, except as otherwise provided by our certificate of incorporation or the DGCL, any one or more or all of the members of our board of directors may be removed, with or without cause, by the holders of a majority of the voting power of the shares entitled to vote thereon.

Stockholder Nomination of Directors. Our bylaws provide that a stockholder must notify us in writing of any stockholder nomination of a director not less than 60 days and not more than 75 days prior to the first anniversary of the date on which we first mailed our proxy materials for the preceding year's annual meeting; provided, that if the date of the annual meeting is advanced or delayed by more than 30 days from such anniversary date, notice by the stockholder to be timely must be so delivered not later than the close of business on the later of (x) the 90th day prior to the date of such meeting or (y) the 10th day following the day on which public announcement of the date of such annual meeting is first made by us.

Delaware Business Combination Statute. Section 203 of the DGCL, is applicable to us. Section 203 of the DGCL restricts some types of transactions and business combinations between a corporation and a 15% stockholder. A 15% stockholder is generally considered by Section 203 to be a person owning 15% or more of the corporation's outstanding voting stock. Section 203 refers to a 15% stockholder as an interested stockholder. Section 203 restricts these transactions for a period of three years from the date the stockholder acquires 15% or more of our outstanding voting stock. With some exceptions, unless the transaction is approved by the board of directors and the holders of at least two-thirds of the outstanding voting stock of the corporation, Section 203 prohibits significant business transactions such as:

a merger with, disposition of significant assets to or receipt of disproportionate financial benefits by the interested stockholder, and

any other transaction that would increase the interested stockholder's proportionate ownership of any class or series of our capital stock.

The shares held by the interested stockholder are not counted as outstanding when calculating the two-thirds of the outstanding voting stock needed for approval.

The prohibition against these transactions does not apply if:

prior to the time that any stockholder became an interested stockholder, the board of directors approved either the business combination or the transaction in which such stockholder acquired 15% or more of our outstanding voting stock, or

the interested stockholder owns at least 85% of our outstanding voting stock as a result of a transaction in which such stockholder acquired 15% or more of our outstanding voting stock. Shares held by persons who are both directors and officers or by some types of employee stock plans are not counted as outstanding when making this calculation.

Preferred Stock

General

Under our charter, we have authority to issue 50,000 shares of preferred stock, \$100 par value per share. The terms of any series of preferred stock will be described in the prospectus supplement relating to that series of preferred stock. The terms of any series of preferred stock may differ from the terms described below. Certain provisions of the preferred stock described below and in any applicable prospectus supplement are not complete.

We are authorized to issue blank check preferred stock, which may be issued in one or more series upon authorization of our board of directors. Our board of directors is authorized to fix the designation of the series, the number of authorized shares of the series, dividend rights and terms, conversion rights, voting rights, redemption rights and terms, liquidation preferences and any other rights, powers, preferences and limitations applicable to each series of preferred stock. The authorized shares of our preferred stock are available for issuance without further action by our stockholders, unless such action is required by applicable law or the rules of any stock exchange on which our securities may be listed. If the approval of our stockholders is not required for the issuance of shares of our preferred stock, our board may determine not to seek stockholder approval.

A series of our preferred stock could, depending on the terms of such series, impede the completion of a merger, tender offer or other takeover attempt. Our board of directors will make any determination to issue such shares based upon its judgment as to the best interests of our stockholders. Our directors, in so acting, could issue our preferred stock having terms that could discourage an acquisition attempt through which an acquirer may be able to change the composition of our board of directors, including a tender offer or other transaction that some, or a majority, of our stockholders might believe to be in their best interests or in which stockholders might receive a premium for their stock over the then-current market price of the stock.

The preferred stock has the terms described below unless otherwise provided in the prospectus supplement relating to a particular series of preferred stock. You should read the prospectus supplement relating to the particular series of preferred stock being offered for specific terms, including:

the designation and stated value per share of the preferred stock and the number of shares offered;

the amount of liquidation preference per share;

the price at which the preferred stock will be issued;

the dividend rate, or method of calculation of dividends, the dates on which dividends will be payable, whether dividends will be cumulative or noncumulative and, if cumulative, the dates from which dividends will commence to accumulate;

any redemption or sinking fund provisions;

if other than the currency of the United States, the currency or currencies including composite currencies in which the preferred stock is denominated and/or in which payments will or may be payable;

any conversion provisions;

whether we have elected to offer depositary shares as described under Description of Depositary Shares; and

any other rights, preferences, privileges, limitations and restrictions on the preferred stock.

The preferred stock will, when issued, be fully paid and nonassessable. Unless otherwise specified in the prospectus supplement, each series of preferred stock will rank equally as to dividends and liquidation rights in all respects with each other series of preferred stock. The rights of holders of shares of each series of preferred stock will be subordinate to those of our general creditors.

As described under Description of Depositary Shares, we may, at our option, with respect to any series of preferred stock, elect to offer fractional interests in shares of preferred stock and provide for the issuance of depositary receipts representing depositary shares, each of which will represent a fractional interest in a share of the series of preferred stock. The fractional interest will be specified in the prospectus supplement relating to a particular series of preferred stock.

Rank

Unless otherwise specified in the prospectus supplement, the preferred stock will, with respect to dividend rights and rights upon our liquidation, dissolution or winding up of its affairs, rank:

senior to our common stock and to all equity securities ranking junior to such preferred stock with respect to dividend rights or rights upon our liquidation, dissolution or winding up of our affairs;

on a parity with all equity securities issued by us, the terms of which specifically provide that such equity securities rank on a parity with the preferred stock with respect to dividend rights or rights upon our liquidation, dissolution or winding up of our affairs; and

junior to all equity securities issued by us, the terms of which specifically provide that such equity securities rank senior to the preferred stock with respect to dividend rights or rights upon our liquidation, dissolution or winding up of our affairs.

The term equity securities does not include convertible debt securities.

Dividends

Holders of the preferred stock of each series will be entitled to receive, when, as and if declared by our board of directors, cash dividends at such rates and on such dates described in the prospectus supplement. Different series of preferred stock may be entitled to dividends at different rates or based on different methods of calculation. The dividend rate may be fixed or variable or both. Dividends will be payable to the holders of record as they appear on our stock books on record dates fixed by our board of directors, as specified in the applicable prospectus supplement.

Dividends on any series of preferred stock may be cumulative or noncumulative, as described in the applicable prospectus supplement. If our board of directors does not declare a dividend payable on a dividend payment date on any series of noncumulative preferred stock, then the holders of that noncumulative preferred stock will have no right

to receive a dividend for that dividend payment date, and we will have no obligation to pay the dividend accrued for that period, whether or not dividends on that series are declared payable on any future dividend payment dates. Dividends on any series of cumulative preferred stock will accrue from the date we initially issue shares of such series or such other date specified in the applicable prospectus supplement.

No dividends may be declared or paid or funds set apart for the payment of any dividends on any parity securities unless full dividends have been paid or set apart for payment on the preferred stock. If full dividends are not paid, the preferred stock will share dividends pro rata with the parity securities.

No dividends may be declared or paid or funds set apart for the payment of dividends on any junior securities unless we have paid in full, or set apart for payment, such accumulated but unpaid dividends on the preferred stock.

Liquidation Preference

Upon any voluntary or involuntary liquidation, dissolution or winding up of our affairs, then, before we make any distribution or payment to the holders of any common stock or any other class or series of our capital stock ranking junior to the preferred stock in the distribution of assets upon any liquidation, dissolution or winding up of our affairs, the holders of each series of preferred stock shall be entitled to receive, out of assets legally available for distribution to stockholders, liquidating distributions in the amount of the liquidation preference per share set forth in the prospectus supplement, plus any accrued and unpaid dividends thereon. Such dividends will not include any accumulation in respect of unpaid noncumulative dividends for prior dividend periods. Unless otherwise specified in the prospectus supplement, after payment of the full amount of their liquidating distributions, the holders of preferred stock will have no right or claim to any of our remaining assets. Upon any such voluntary or involuntary liquidation, dissolution or winding up, if our available assets are insufficient to pay the amount of the liquidating distributions on all outstanding preferred stock and the corresponding amounts payable on all other classes or series of our capital stock ranking on parity with the preferred stock and all other such classes or series of shares of capital stock ranking on parity with the preferred stock in the distribution of assets, then the holders of the preferred stock and all other such classes or series of capital stock will share ratably in any such distribution of assets in proportion to the full liquidating distributions to which they would otherwise be entitled.

Upon any such liquidation, dissolution or winding up and if we have made liquidating distributions in full to all holders of preferred stock, we will distribute our remaining assets among the holders of any other classes or series of capital stock ranking junior to the preferred stock according to their respective rights and preferences and, in each case, according to their respective number of shares. For such purposes, our consolidation or merger with or into any other corporation, trust or entity, or the sale, lease or conveyance of all or substantially all of our property or assets will not be deemed to constitute a liquidation, dissolution or winding up of our affairs.

Redemption

If so provided in the applicable prospectus supplement, the preferred stock will be subject to mandatory redemption or redemption at our option, as a whole or in part, in each case upon the terms, at the times and at the redemption prices set forth in such prospectus supplement.

The prospectus supplement relating to a series of preferred stock that is subject to mandatory redemption will specify the number of shares of preferred stock that shall be redeemed by us in each year commencing after a date to be specified, at a redemption price per share to be specified, together with an amount equal to all accrued and unpaid dividends thereon to the date of redemption. Unless the shares have a cumulative dividend, such accrued dividends will not include any accumulation in respect of unpaid dividends for prior dividend periods. We may pay the redemption price in cash or other property, as specified in the applicable prospectus supplement. If the redemption price for preferred stock of any series is payable only from the net proceeds of the issuance of shares of our capital stock, the terms of such preferred stock may provide that, if no such shares of our capital stock shall have been issued or to the extent the net proceeds from any issuance are insufficient to pay in full the aggregate redemption price then due, such preferred stock shall automatically and mandatorily be converted into the applicable shares of our capital stock pursuant to conversion provisions specified in the applicable prospectus supplement. Notwithstanding the foregoing, we will not redeem any preferred stock of a series unless:

if that series of preferred stock has a cumulative dividend, we have declared and paid or contemporaneously declare and pay or set aside funds to pay full cumulative dividends on the preferred stock for all past dividend periods and the then current dividend period; or

if such series of preferred stock does not have a cumulative dividend, we have declared and paid or contemporaneously declare and pay or set aside funds to pay full dividends for the then current dividend period.

In addition, we will not acquire any preferred stock of a series unless:

if that series of preferred stock has a cumulative dividend, we have declared and paid or contemporaneously declare and pay or set aside funds to pay full cumulative dividends on all outstanding shares of such series of preferred stock for all past dividend periods and the then current dividend period; or

if that series of preferred stock does not have a cumulative dividend, we have declared and paid or contemporaneously declare and pay or set aside funds to pay full dividends on the preferred stock of such series for the then current dividend period.

However, at any time we may purchase or acquire preferred stock of that series (1) pursuant to a purchase or exchange offer made on the same terms to holders of all outstanding preferred stock of such series or (2) by conversion into or exchange for shares of our capital stock ranking junior to the preferred stock of such series as to dividends and upon liquidation.

If fewer than all of the outstanding shares of preferred stock of any series are to be redeemed, we will determine the number of shares that may be redeemed pro rata from the holders of record of such shares in proportion to the number of such shares held or for which redemption is requested by such holder or by any other equitable manner that we determine. Such determination will reflect adjustments to avoid redemption of fractional shares.

Unless otherwise specified in the prospectus supplement, we will mail notice of redemption at least 30 days but not more than 60 days before the redemption date to each holder of record of preferred stock to be redeemed at the address shown on our stock transfer books. Each notice shall state:

the redemption date;

the number of shares and series of preferred stock to be redeemed;

the redemption price;

the place or places where certificates for such preferred stock are to be surrendered for payment of the redemption price;

that dividends on the shares to be redeemed will cease to accrue on such redemption date;

the date upon which the holder's conversion rights, if any, as to such shares shall terminate; and

the specific number of shares to be redeemed from each such holder if fewer than all the shares of any series are to be redeemed.

If notice of redemption has been given and we have set aside the funds necessary for such redemption in trust for the benefit of the holders of any shares called for redemption, then from and after the redemption date, dividends will cease to accrue on such shares and all rights of the holders of such shares will terminate, except the right to receive the redemption price.

Voting Rights

Holders of preferred stock will not have any voting rights, except as required by law or as indicated in the applicable prospectus supplement.

Unless otherwise provided for under the terms of any series of preferred stock, no consent or vote of the holders of shares of preferred stock or any series thereof shall be required for any amendment to our certificate of incorporation that would increase the number of authorized shares of preferred stock or the number of authorized shares of any series thereof or decrease the number of authorized shares of preferred stock or the number of authorized shares of any series thereof (but not below the number of authorized shares of preferred stock or such series, as the case may be, then outstanding).

Conversion Rights

The terms and conditions, if any, upon which any series of preferred stock is convertible into our common stock will be set forth in the applicable prospectus supplement relating thereto. Such terms will include the number of shares of common stock into which the shares of preferred stock are convertible, the conversion price, rate or manner of calculation thereof, the conversion period, provisions as to whether conversion will be at our option or at the option of the holders of the preferred stock, the events requiring an adjustment of the conversion price and provisions affecting conversion in the event of the redemption.

Transfer Agent and Registrar

The transfer agent and registrar for the preferred stock will be set forth in the applicable prospectus supplement.

DESCRIPTION OF DEPOSITARY SHARES

General

We may, at our option, elect to offer fractional shares of preferred stock, which we call depositary shares, rather than full shares of preferred stock. If we do, we will issue to the public receipts, called depositary receipts, for depositary shares, each of which will represent a fraction, to be described in the applicable prospectus supplement, of a share of a particular series of preferred stock. Unless otherwise provided in the prospectus supplement, each owner of a depositary share will be entitled, in proportion to the applicable fractional interest in a share of preferred stock represented by the depositary share, to all the rights and preferences of the preferred stock represented by the depositary share. Those rights include dividend, voting, redemption, conversion and liquidation rights.

The shares of preferred stock underlying the depositary shares will be deposited with a bank or trust company selected by us to act as depositary under a deposit agreement between us, the depositary and the holders of the depositary receipts. The depositary will be the transfer agent, registrar and dividend disbursing agent for the depositary shares.

The depositary shares will be evidenced by depositary receipts issued pursuant to the deposit agreement. Holders of depositary receipts agree to be bound by the deposit agreement, which requires holders to take certain actions such as filing proof of residence and paying certain charges.

The summary of terms of the depositary shares contained in this prospectus is not a complete description of the terms of the depositary shares. You should refer to the form of the deposit agreement, our certificate of incorporation and the certificate of designation for the applicable series of preferred stock that are, or will be, filed with the SEC. When we refer to we, our, and us in this Description of Depositary Shares, we mean Thermo Fisher Scientific Inc. excluding, unless the context otherwise requires or as otherwise expressly stated, our subsidiaries.

Dividends and Other Distributions

The depositary will distribute all cash dividends or other cash distributions, if any, received in respect of the preferred stock underlying the depositary shares to the record holders of depositary shares in proportion to the numbers of depositary shares owned by those holders on the relevant record date. The relevant record date for depositary shares will be the same date as the record date for the underlying preferred stock.

If there is a distribution other than in cash, the depositary will distribute property (including securities) received by it to the record holders of depositary shares, unless the depositary determines that it is not feasible to make the distribution. If this occurs, the depositary may, with our approval, adopt another method for the distribution, including selling the property and distributing the net proceeds from the sale to the holders.

Liquidation Preference

If a series of preferred stock underlying the depositary shares has a liquidation preference, in the event of the voluntary or involuntary liquidation, dissolution or winding up of us, holders of depositary shares will be entitled to receive the fraction of the liquidation preference accorded each share of the applicable series of preferred stock, as set forth in the applicable prospectus supplement.

Withdrawal of Stock

Unless the related depositary shares have been previously called for redemption, upon surrender of the depositary receipts at the office of the depositary, the holder of the depositary shares will be entitled to delivery, at the office

of the depositary to or upon his or her order, of the number of whole shares of the preferred stock and any money or other property represented by the depositary shares. If the depositary receipts delivered by the holder evidence a number of depositary shares in excess of the number of depositary shares representing the number of whole shares of preferred stock to be withdrawn, the depositary will deliver to the holder at the same time a new depositary receipt evidencing the excess number of depositary shares. In no event will the depositary deliver fractional shares of preferred stock upon surrender of depositary receipts. Holders of preferred stock thus withdrawn may not thereafter deposit those shares under the deposit agreement or receive depositary receipts evidencing depositary shares therefor.

Redemption of Depositary Shares

Whenever we redeem shares of preferred stock held by the depositary, the depositary will redeem as of the same redemption date the number of depositary shares representing shares of the preferred stock so redeemed, so long as we have paid in full to the depositary the redemption price of the preferred stock to be redeemed plus an amount equal to any accumulated and unpaid dividends on the preferred stock to the date fixed for redemption. The redemption price per depositary share will be equal to the redemption price and any other amounts per share payable on the preferred stock multiplied by the fraction of a share of preferred stock represented by one depositary share. If less than all the depositary shares are to be redeemed, the depositary shares to be redeemed will be selected by lot or pro rata or by any other equitable method as may be determined by the depositary.

After the date fixed for redemption, depositary shares called for redemption will no longer be deemed to be outstanding and all rights of the holders of depositary shares will cease, except the right to receive the monies payable upon redemption and any money or other property to which the holders of the depositary shares were entitled upon redemption upon surrender to the depositary of the depositary receipts evidencing the depositary shares.

Voting the Preferred Stock

Upon receipt of notice of any meeting at which the holders of the preferred stock are entitled to vote, the depositary will mail the information contained in the notice of meeting to the record holders of the depositary receipts relating to that preferred stock. The record date for the depositary receipts relating to the preferred stock will be the same date as the record date for the preferred stock. Each record holder of the depositary shares on the record date will be entitled to instruct the depositary as to the exercise of the voting rights pertaining to the number of shares of preferred stock represented by that holder's depositary shares. The depositary will endeavor, insofar as practicable, to vote the number of shares of preferred stock represented by the depositary shares in accordance with those instructions, and we will agree to take all action that may be deemed necessary by the depositary in order to enable the depositary to do so. The depositary will not vote any shares of preferred stock except to the extent it receives specific instructions from the holders of depositary shares representing that number of shares of preferred stock.

Charges of Depositary

We will pay all transfer and other taxes and governmental charges arising solely from the existence of the depositary arrangements. We will pay charges of the depositary in connection with the initial deposit of the preferred stock and any redemption of the preferred stock. Holders of depositary receipts will pay transfer, income and other taxes and governmental charges and such other charges (including those in connection with the receipt and distribution of dividends, the sale or exercise of rights, the withdrawal of the preferred stock and the transferring, splitting or grouping of depositary receipts) as are expressly provided in the deposit agreement to be for their accounts. If these charges have not been paid by the holders of depositary receipts, the depositary may refuse to transfer depositary shares, withhold dividends and distributions and sell the depositary shares evidenced by the depositary receipt.

Amendment and Termination of the Deposit Agreement

The form of depositary receipt evidencing the depositary shares and any provision of the deposit agreement may be amended by agreement between us and the depositary. However, any amendment that materially and adversely alters the rights of the holders of depositary shares, other than fee changes, will not be effective unless the amendment has been approved by the holders of a majority of the outstanding depositary shares. The deposit agreement may be terminated by the depositary or us only if:

all outstanding depositary shares have been redeemed; or

there has been a final distribution of the preferred stock in connection with our dissolution and such distribution has been made to all the holders of depositary shares.

Resignation and Removal of Depositary

The depositary may resign at any time by delivering to us notice of its election to do so, and we may remove the depositary at any time. Any resignation or removal of the depositary will take effect upon our appointment of a successor depositary and its acceptance of such appointment. The successor depositary must be appointed within 60 days after delivery of the notice of resignation or removal and must be a bank or trust company having its principal office in the United States and having the requisite combined capital and surplus as set forth in the applicable agreement.

Notices

The depositary will forward to holders of depositary receipts all notices, reports and other communications, including proxy solicitation materials received from us, that are delivered to the depositary and that we are required to furnish to the holders of the preferred stock. In addition, the depositary will make available for inspection by holders of depositary receipts at the principal office of the depositary, and at such other places as it may from time to time deem advisable, any reports and communications we deliver to the depositary as the holder of preferred stock.

Limitation of Liability

Neither we nor the depositary will be liable if either we or it is prevented or delayed by law or any circumstance beyond its control in performing its obligations. Our obligations and those of the depositary will be limited to performance in good faith of our and their duties thereunder. We and the depositary will not be obligated to prosecute or defend any legal proceeding in respect of any depositary shares or preferred stock unless satisfactory indemnity is furnished. We and the depositary may rely upon written advice of counsel or accountants, on information provided by persons presenting preferred stock for deposit, holders of depositary receipts or other persons believed to be competent to give such information and on documents believed to be genuine and to have been signed or presented by the proper party or parties.

DESCRIPTION OF PURCHASE CONTRACTS AND PURCHASE UNITS

We may issue purchase contracts, including contracts obligating holders to purchase from or sell to us, and obligating us to sell to or purchase from the holders, a specified number of shares of our common stock, preferred stock or depositary shares at a future date or dates, which we refer to in this prospectus as purchase contracts. When we refer to we, our, and us in this Description of Capital Stock, we mean Thermo Fisher Scientific Inc. excluding, unless the context otherwise requires or as otherwise expressly stated, our subsidiaries.

The price per share of common stock, preferred stock or depositary shares and the number of shares of each may be fixed at the time the purchase contracts are issued or may be determined by reference to a specific formula set forth in the purchase contracts. The purchase contracts may be issued separately or as part of units, often known as purchase units, consisting of one or more purchase contracts and beneficial interests in:

debt securities issued by us or Thermo Fisher International,

debt obligations of third parties, including U.S. treasury securities, or

any other securities described in the applicable prospectus supplement or any combination of the foregoing, securing the holders' obligations to purchase the common stock, preferred stock or depositary shares under the purchase contracts.

The purchase contracts may require us to make periodic payments to the holders of the purchase units or vice versa, and these payments may be unsecured or prefunded on some basis. The purchase contracts may require holders to secure their obligations under those contracts in a specified manner, including pledging their interest in another purchase contract.

The applicable prospectus supplement will describe the terms of the purchase contracts and purchase units, including, if applicable, collateral or depositary arrangements.

DESCRIPTION OF WARRANTS

We may issue warrants to purchase debt securities, preferred stock, depositary shares or common stock. We may offer warrants separately or together with one or more additional warrants, debt securities, preferred stock, depositary shares or common stock, or any combination of those securities in the form of units, as described in the applicable prospectus supplement. If we issue warrants as part of a unit, the accompanying prospectus supplement will specify whether those warrants may be separated from the other securities in the unit prior to the expiration date of the warrants. The applicable prospectus supplement will also describe the following terms of any warrants:

the specific designation and aggregate number of, and the offering price at which we will issue, the warrants;

the currency or currency units in which the offering price, if any, and the exercise price are payable;

the date on which the right to exercise the warrants will begin and the date on which that right will expire or, if you may not continuously exercise the warrants throughout that period, the specific date or dates on which you may exercise the warrants;

whether the warrants are to be sold separately or with other securities as parts of units;

whether the warrants will be issued in definitive or global form or in any combination of these forms, although, in any case, the form of a warrant included in a unit will correspond to the form of the unit and of any security included in that unit;

any applicable material U.S. federal income tax consequences;

the identity of the warrant agent for the warrants and of any other depositaries, execution or paying agents, transfer agents, registrars or other agents;

the proposed listing, if any, of the warrants or any securities purchasable upon exercise of the warrants on any securities exchange;

the designation and terms of any equity securities purchasable upon exercise of the warrants;

the designation, aggregate principal amount, currency and terms of any debt securities that may be purchased upon exercise of the warrants;

if applicable, the designation and terms of the debt securities, preferred stock, depositary shares or common stock with which the warrants are issued and the number of warrants issued with each security;

if applicable, the date from and after which any warrants issued as part of a unit and the related debt securities, preferred stock, depositary shares or common stock will be separately transferable;

the number of shares of preferred stock, the number of depositary shares or the number of shares of common stock purchasable upon exercise of a warrant and the price at which those shares may be purchased;

if applicable, the minimum or maximum amount of the warrants that may be exercised at any one time;

information with respect to book-entry procedures, if any;

the antidilution provisions of, and other provisions for changes to or adjustment in the exercise price of, the warrants, if any;

any redemption or call provisions; and

any additional terms of the warrants, including terms, procedures and limitations relating to the exchange or exercise of the warrants.

FORMS OF SECURITIES

Each debt security, depositary share, purchase contract, purchase unit and warrant of Thermo Fisher and each debt security of Thermo Fisher International 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, depositary shares, purchase contracts, purchase units or warrants 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.

Global Securities

Thermo Fisher may issue the debt securities, depositary shares, purchase contracts, purchase units and warrants and Thermo Fisher International may issue debt, in each case, 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 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 global securities. Unless and until it is exchanged in whole for securities in definitive registered form, a global security may not be transferred except as a whole by and among the depositary for the global security, the nominees of the depositary or any successors of the depositary or those nominees.

If not described below, any specific terms of the depositary arrangement with respect to any securities to be represented by a 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 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 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 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 global securities.

So long as the depositary, or its nominee, is the registered owner of a 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 global security for all purposes under the applicable indenture, deposit agreement, purchase contract, warrant agreement or purchase unit agreement. Except as described below, owners of beneficial interests in a global security will not be entitled to have the securities represented by the 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, deposit agreement, purchase contract, purchase unit agreement or warrant agreement. Accordingly, each person owning a beneficial interest in a global security must rely on the procedures of the depositary for that 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 any rights of a holder under the applicable indenture, deposit agreement, purchase contract, purchase unit agreement or warrant agreement. We understand that under existing industry practices, if we request any action of holders or if an owner of a beneficial interest in a global security desires to give or take any action that a holder is entitled to give or take under the applicable indenture, deposit agreement, purchase contract, purchase unit agreement or warrant agreement, the depository for the 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, and any payments to holders with respect to depository shares, warrants, purchase agreements or purchase units, represented by a global security registered in the name of a depository or its nominee will be made to the depository or its nominee, as the case may be, as the registered owner of the global security. None of us, or any trustee, warrant agent, unit agent or other agent of ours, or any agent of any trustee, warrant agent or unit agent will have any responsibility or liability for any aspect of the records relating to payments made on account of beneficial ownership interests in the global security or for maintaining, supervising or reviewing any records relating to those beneficial ownership interests.

We expect that the depository for any of the securities represented by a global security, upon receipt of any payment to holders of principal, premium, interest or other distribution of underlying securities or other property on that registered global security, will immediately credit participants' accounts in amounts proportionate to their respective beneficial interests in that global security as shown on the records of the depository. We also expect that payments by participants to owners of beneficial interests in a 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.

If the depository for any of the securities represented by a global security is at any time unwilling or unable to continue as depository or ceases to be a clearing agency registered under the Exchange Act, and a successor depository registered as a clearing agency under the Exchange Act is not appointed by us within 90 days, we will issue securities in definitive form in exchange for the global security that had been held by the depository. Any securities issued in definitive form in exchange for a global security will be registered in the name or names that the depository gives to the relevant trustee, warrant agent, unit agent or other relevant agent of ours or theirs. It is expected that the depository's instructions will be based upon directions received by the depository from participants with respect to ownership of beneficial interests in the global security that had been held by the depository.

PLAN OF DISTRIBUTION

We may sell securities:

through underwriters;

through agents;

directly to purchasers; or

through a combination of any of these methods of sale.

In addition, we may issue the securities as a dividend or distribution or in a subscription rights offering to our existing security holders.

We may directly solicit offers to purchase securities or agents may be designated to solicit such offers. We will, in the prospectus supplement relating to such 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 the agent or any 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 such 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 such securities to the dealer, as principal. The dealer may then resell such securities to the public at varying prices to be determined by such dealer at the time of resale.

If we offer securities in a subscription rights offering to our existing security holders, we may enter into a standby underwriting agreement with dealers, acting as standby underwriters. We may pay the standby underwriters a commitment fee for the securities they commit to purchase on a standby basis. If we do not enter into a standby underwriting arrangement, we may retain a dealer-manager to manage a subscription rights offering for us.

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, and may be customers of, engage in transactions with or perform services for us in the ordinary course of business.

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 shall 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 shall 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.

Under Rule 15c6-1 of the Exchange Act, trades in the secondary market generally are required to settle in three 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 three 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 third 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 three scheduled business days after the trade date for your securities, to make alternative settlement arrangements to prevent a failed settlement.

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. We can make no assurance as to the liquidity of or the existence of trading markets for any of the securities.

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 Wilmer Cutler Pickering Hale and Dorr LLP.

EXPERTS

The financial statements and management's assessment of the effectiveness of internal control over financial reporting (which is included in Management's Report on Internal Control over Financial Reporting) incorporated in this prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2015 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

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Thermo Fisher Scientific Inc.

% Senior Notes due

PROSPECTUS SUPPLEMENT

J.P. Morgan

Citigroup

Deutsche Bank Securities

, 2016