UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q

(Mark One)

☒QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
FOR THE QUARTERLY PERIOD ENDED JUNE 30, 2019

or

☐TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
FOR THE TRANSITION PERIOD FROM TO
Commission File Number: 001-36326

Endo International plc
(Exact name of registrant as specified in its charter)

Ireland	**68-0683755**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
First Floor, Minerva House, Simmonscourt Road **Ballsbridge, Dublin 4, Ireland**	**Not Applicable**
(Address of Principal Executive Offices)	(Zip Code)

011-353-1-268-2000
(Registrant's telephone number, including area code)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

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

Large accelerated filer	☒	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
		Emerging growth company	☐

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

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

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

Title of each class	**Trading symbol(s)**	**Name of each exchange on which registered**
Ordinary shares, nominal value $0.0001 per share	ENDP	The Nasdaq Global Select Market

Indicate the number of shares outstanding of each of the issuer's classes of ordinary shares, as of the latest practicable date.

Ordinary shares, $0.0001 par value — Number of ordinary shares outstanding as of July 29, 2019: 226,392,282

ENDO INTERNATIONAL PLC

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FORWARD-LOOKING STATEMENTS

Statements contained or incorporated by reference in this document contain information that includes or is based on “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended (Securities Act) and Section 21E of the Securities Exchange Act of 1934, as amended (Exchange Act). These statements, including estimates of future revenues, future expenses, future net income and future net income per share contained in the “Management’s Discussion and Analysis of Financial Condition and Results of Operations” section of this document, are subject to risks and uncertainties. Forward-looking statements include the information concerning our possible or assumed results of operations. We have tried, whenever possible, to identify such statements by words such as “believe,” “expect,” “anticipate,” “intend,” “estimate,” “plan,” “project,” “forecast,” “will,” “may” or similar expressions. We have based these forward-looking statements on our current expectations and projections about the growth of our business, our financial performance and the development of our industry. Because these statements reflect our current views concerning future events, these forward-looking statements involve risks and uncertainties. Investors should note that many factors, as more fully described under the caption “Risk Factors” in Part II, Item 1A of this document and in Part I, Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2018 filed with the Securities and Exchange Commission (SEC) on February 28, 2019 (the Annual Report), as amended and supplemented by the risk factors previously disclosed by us in Part II, Item 1A under the caption “Risk Factors” of our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2019, and as otherwise enumerated herein, could affect our future financial results and could cause our actual results to differ materially from those expressed in forward-looking statements contained or incorporated by reference in this document.

We do not undertake any obligation to update our forward-looking statements after the date of this document for any reason, even if new information becomes available or other events occur in the future, except as may be required under applicable securities law. You are advised to consult any further disclosures we make on related subjects in our reports filed with the SEC and with securities regulators in Canada on the System for Electronic Document Analysis and Retrieval (SEDAR). Also note that, in Part II, Item 1A of this document and in Part I, Item 1A of the Annual Report, as amended and supplemented by the risk factors previously disclosed by us in Part II, Item 1A under the caption “Risk Factors” of our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2019, and as otherwise enumerated herein, we provide a cautionary discussion of the risks, uncertainties and possibly inaccurate assumptions relevant to our business. These are factors that, individually or in the aggregate, we think could cause our actual results to differ materially from expected and historical results. We note these factors for investors as permitted by Section 27A of the Securities Act and Section 21E of the Exchange Act. You should understand that it is not possible to predict or identify all such factors. Consequently, you should not consider this to be a complete discussion of all potential risks or uncertainties.

PART I. FINANCIAL INFORMATION

Item 1. Financial Statements

ENDO INTERNATIONAL PLC
CONDENSED CONSOLIDATED BALANCE SHEETS (UNAUDITED)
(Dollars in thousands, except share and per share data)

	June 30, 2019	December 31, 2018
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	$ 1,446,949	$ 1,149,113
Restricted cash and cash equivalents	307,587	305,368
Accounts receivable, net	442,078	470,570
Inventories, net	335,890	322,179
Prepaid expenses and other current assets	183,147	56,139
Income taxes receivable	39,401	39,781
Total current assets	$ 2,755,052	$ 2,343,150
PROPERTY, PLANT AND EQUIPMENT, NET	494,501	498,892
OPERATING LEASE ASSETS	56,098	—
GOODWILL	3,615,697	3,764,636
OTHER INTANGIBLES, NET	3,075,654	3,457,306
DEFERRED INCOME TAXES	—	678
OTHER ASSETS	77,287	67,731
TOTAL ASSETS	$ 10,074,289	$ 10,132,393
LIABILITIES AND SHAREHOLDERS' DEFICIT		
CURRENT LIABILITIES:		
Accounts payable and accrued expenses	$ 931,207	$ 1,009,200
Current portion of legal settlement accrual	854,847	905,085
Current portion of operating lease liabilities	12,092	—
Current portion of long-term debt	34,150	34,150
Income taxes payable	3,524	1,661
Total current liabilities	$ 1,835,820	$ 1,950,096
DEFERRED INCOME TAXES	33,397	34,487
LONG-TERM DEBT, LESS CURRENT PORTION, NET	8,369,972	8,224,269
OPERATING LEASE LIABILITIES, LESS CURRENT PORTION	52,186	—
OTHER LIABILITIES	373,386	421,824
COMMITMENTS AND CONTINGENCIES (NOTE 13)		
SHAREHOLDERS' DEFICIT:		
Euro deferred shares, $0.01 par value; 4,000,000 shares authorized and issued at both June 30, 2019 and December 31, 2018	45	46
Ordinary shares, $0.0001 par value; 1,000,000,000 shares authorized; 226,391,081 and 224,382,791 shares issued and outstanding at June 30, 2019 and December 31, 2018, respectively	23	22
Additional paid-in capital	8,883,720	8,855,810
Accumulated deficit	(9,254,156)	(9,124,932)
Accumulated other comprehensive loss	(220,104)	(229,229)
Total shareholders' deficit	$ (590,472)	$ (498,283)
TOTAL LIABILITIES AND SHAREHOLDERS' DEFICIT	$ 10,074,289	$ 10,132,393

See accompanying Notes to Condensed Consolidated Financial Statements.

ENDO INTERNATIONAL PLC
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS (UNAUDITED)
(Dollars in thousands, except per share data)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
TOTAL REVENUES, NET	$ 699,727	$ 714,696	$ 1,420,138	$ 1,415,223
COSTS AND EXPENSES:				
Cost of revenues	388,208	381,905	780,117	785,503
Selling, general and administrative	152,297	148,157	303,420	314,824
Research and development	26,348	82,102	59,834	120,748
Litigation-related and other contingencies, net	10,315	19,620	10,321	17,120
Asset impairment charges	88,438	22,767	253,886	471,183
Acquisition-related and integration items	(5,507)	5,161	(43,008)	11,996
Interest expense, net	134,809	130,059	267,484	254,049
Gain on extinguishment of debt	—	—	(119,828)	—
Other (income) expense, net	(597)	(28,831)	4,205	(31,709)
LOSS FROM CONTINUING OPERATIONS BEFORE INCOME TAX	$ (94,584)	$ (46,244)	$ (96,293)	$ (528,491)
INCOME TAX EXPENSE	3,468	6,235	14,371	21,726
LOSS FROM CONTINUING OPERATIONS	$ (98,052)	$ (52,479)	$ (110,664)	$ (550,217)
DISCONTINUED OPERATIONS, NET OF TAX (NOTE 3)	(7,953)	(8,388)	(13,914)	(16,139)
NET LOSS	$ (106,005)	$ (60,867)	$ (124,578)	$ (566,356)
NET LOSS PER SHARE—BASIC:				
Continuing operations	$ (0.43)	$ (0.23)	$ (0.49)	$ (2.46)
Discontinued operations	(0.04)	(0.04)	(0.06)	(0.07)
Basic	$ (0.47)	$ (0.27)	$ (0.55)	$ (2.53)
NET LOSS PER SHARE—DILUTED:				
Continuing operations	$ (0.43)	$ (0.23)	$ (0.49)	$ (2.46)
Discontinued operations	(0.04)	(0.04)	(0.06)	(0.07)
Diluted	$ (0.47)	$ (0.27)	$ (0.55)	$ (2.53)
WEIGHTED AVERAGE SHARES:				
Basic	226,221	223,834	225,408	223,677
Diluted	226,221	223,834	225,408	223,677

See accompanying Notes to Condensed Consolidated Financial Statements.

ENDO INTERNATIONAL PLC
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS (UNAUDITED)
(Dollars in thousands)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
NET LOSS	$ (106,005)	$ (60,867)	$ (124,578)	$ (566,356)
OTHER COMPREHENSIVE INCOME (LOSS):				
Net unrealized gain (loss) on foreign currency:				
Foreign currency translation gain (loss) arising during the period	$ 4,395	$ (5,971)	$ 9,125	$ (11,768)
Less: reclassification adjustments for (gain) loss realized in net loss	—	—	—	—
	4,395	(5,971)	9,125	(11,768)
OTHER COMPREHENSIVE INCOME (LOSS)	$ 4,395	$ (5,971)	$ 9,125	$ (11,768)
COMPREHENSIVE LOSS	$ (101,610)	$ (66,838)	$ (115,453)	$ (578,124)

See accompanying Notes to Condensed Consolidated Financial Statements.

ENDO INTERNATIONAL PLC
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS (UNAUDITED)
(Dollars in thousands)

	Six Months Ended June 30,	
	2019	**2018**
OPERATING ACTIVITIES:		
Net loss	$ (124,578)	$ (566,356)
Adjustments to reconcile Net loss to Net cash provided by operating activities:		
Depreciation and amortization	320,788	379,646
Inventory step-up	—	190
Share-based compensation	37,333	29,986
Amortization of debt issuance costs and discount	9,540	10,112
Deferred income taxes	(1,423)	12,147
Change in fair value of contingent consideration	(43,008)	10,962
Gain on extinguishment of debt	(119,828)	—
Asset impairment charges	253,886	471,183
Gain on sale of business and other assets	(1,168)	(26,993)
Changes in assets and liabilities which provided (used) cash:		
Accounts receivable	34,557	48,744
Inventories	(29,167)	43,648
Prepaid and other assets	6,780	5,230
Accounts payable, accrued expenses and other liabilities	(266,800)	(199,065)
Income taxes payable/receivable	9,690	(302)
Net cash provided by operating activities	$ 86,602	$ 219,132
INVESTING ACTIVITIES:		
Purchases of property, plant and equipment, excluding capitalized interest	(23,632)	(41,960)
Capitalized interest payments	(2,190)	(1,677)
Proceeds from sale of business and other assets, net	2,594	37,971
Other investing activities	912	(3,322)
Net cash used in investing activities	$ (22,316)	$ (8,988)
FINANCING ACTIVITIES:		
Proceeds from issuance of notes, net	1,483,125	—
Repayments of notes	(1,501,788)	—
Repayments of term loans	(17,076)	(17,076)
Proceeds from draw of revolving debt	300,000	—
Repayments of other indebtedness	(6,656)	(2,574)
Payments for debt issuance and extinguishment costs	(5,100)	—
Payments for contingent consideration	(8,153)	(19,267)
Payments of tax withholding for restricted shares	(9,427)	(1,876)
Proceeds from exercise of options	4	—
Net cash provided by (used in) financing activities	$ 234,929	$ (40,793)
Effect of foreign exchange rate	841	(1,010)
NET INCREASE IN CASH, CASH EQUIVALENTS, RESTRICTED CASH AND RESTRICTED CASH EQUIVALENTS	$ 300,056	$ 168,341
CASH, CASH EQUIVALENTS, RESTRICTED CASH AND RESTRICTED CASH EQUIVALENTS, BEGINNING OF PERIOD	1,476,837	1,311,014
CASH, CASH EQUIVALENTS, RESTRICTED CASH AND RESTRICTED CASH EQUIVALENTS, END OF PERIOD	$ 1,776,893	$ 1,479,355
SUPPLEMENTAL INFORMATION:		
Cash paid into Qualified Settlement Funds for mesh legal settlements	$ 155,995	$ 126,400
Cash paid out of Qualified Settlement Funds for mesh legal settlements	$ 151,388	$ 148,824
Other cash distributions for mesh legal settlements	$ 11,428	$ 12,761

See accompanying Notes to Condensed Consolidated Financial Statements.

ENDO INTERNATIONAL PLC
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)
FOR THE THREE AND SIX MONTHS ENDED JUNE 30, 2019

NOTE 1. BASIS OF PRESENTATION

Endo International plc is an Ireland-domiciled, global specialty pharmaceutical company focused on generic and branded pharmaceuticals. We aim to be the premier partner to healthcare professionals and payment providers, delivering an innovative suite of generic and branded drugs to meet patients' needs.

Unless otherwise indicated or required by the context, references throughout to "Endo," the "Company," "we," "our" or "us" refer to financial information and transactions of Endo International plc and its subsidiaries.

The accompanying unaudited Condensed Consolidated Financial Statements of Endo International plc and its subsidiaries have been prepared in accordance with United States (U.S.) generally accepted accounting principles (U.S. GAAP) for interim financial information and the instructions to Form 10-Q and Article 10 of Regulation S-X of the SEC for interim financial information. Accordingly, they do not include all of the information and footnotes required by U.S. GAAP for complete financial statements. In the opinion of management, the accompanying Condensed Consolidated Financial Statements of Endo International plc and its subsidiaries, which are unaudited, include all normal and recurring adjustments necessary for a fair statement of the Company's financial position as of June 30, 2019 and the results of our operations and our cash flows for the periods presented. Operating results for the three and six months ended June 30, 2019 are not necessarily indicative of the results that may be expected for the year ending December 31, 2019. The year-end Condensed Consolidated Balance Sheet data as of December 31, 2018 was derived from audited financial statements but does not include all disclosures required by U.S. GAAP.

The information included in this Quarterly Report on Form 10-Q should be read in conjunction with our Consolidated Financial Statements and accompanying notes included in the Annual Report.

Certain prior period amounts have been reclassified to conform to the current period presentation.

NOTE 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Significant Accounting Policies Added or Updated since December 31, 2018

Significant changes to our significant accounting policies since December 31, 2018 are detailed below. For additional discussion of the Company's significant accounting policies, see Note 2. Summary of Significant Accounting Policies in the Consolidated Financial Statements, included in Part IV, Item 15 of the Annual Report.

Lease Accounting. The Company adopted *Accounting Standards Codification Topic 842, Leases* (ASC 842) on January 1, 2019. For further discussion of the adoption, refer to the "Recent Accounting Pronouncements Adopted or Otherwise Effective as of June 30, 2019" section below. ASC 842 applies to a number of arrangements to which the Company is party.

Whenever the Company enters into a new arrangement, it must determine, at the inception date, whether the arrangement is or contains a lease. This determination generally depends on whether the arrangement conveys to the Company the right to control the use of an explicitly or implicitly identified asset for a period of time in exchange for consideration. Control of an underlying asset is conveyed to the Company if the Company obtains the rights to direct the use of and to obtain substantially all of the economic benefits from using the underlying asset.

If a lease exists, the Company must then determine the separate lease and nonlease components of the arrangement. Each right to use an underlying asset conveyed by a lease arrangement should generally be considered a separate lease component if it both: (i) can benefit the Company without depending on other resources not readily available to the Company and (ii) does not significantly affect and is not significantly affected by other rights of use conveyed by the lease. Aspects of a lease arrangement that transfer other goods or services to the Company but do not meet the definition of lease components are considered nonlease components. The consideration owed by the Company pursuant to a lease arrangement is generally allocated to each lease and nonlease components for accounting purposes. However, the Company has elected, for all of its leases, to not separate lease and nonlease components. Each lease component is accounted for separately from other lease components, but together with the associated nonlease components.

For each lease, the Company must then determine the lease term, the present value of lease payments and the classification of the lease as either an operating or finance lease.

The lease term is the period of the lease not cancellable by the Company, together with periods covered by: (i) renewal options the Company is reasonably certain to exercise, (ii) termination options the Company is reasonably certain not to exercise and (iii) renewal or termination options that are controlled by the lessor.

The present value of lease payments is calculated based on:

- Lease payments—Lease payments include fixed and certain variable payments, less lease incentives, together with amounts probable of being owed by the Company under residual value guarantees and, if reasonably certain of being paid, the cost of certain renewal options and early termination penalties set forth in the lease arrangement. Lease payments exclude consideration that is not related to the transfer of goods and services to the Company.
- Discount rate—The discount rate must be determined based on information available to the Company upon the commencement of a lease. Lessees are required to use the rate implicit in the lease whenever such rate is readily available; however, as the implicit rate in the Company's leases is generally not readily determinable, the Company generally uses the hypothetical incremental borrowing rate it would have to pay to borrow an amount equal to the lease payments, on a collateralized basis, over a timeframe similar to the lease term.

In making the determination of whether a lease is an operating lease or a finance lease, the Company considers the lease term in relation to the economic life of the leased asset, the present value of lease payments in relation to the fair value of the leased asset and certain other factors, including the lessee's and lessor's rights, obligations and economic incentives over the term of the lease.

Generally, upon the commencement of a lease, the Company will record a lease liability and a right-of-use (ROU) asset. However, the Company has elected, for all underlying assets with initial lease terms of twelve months or less (known as short-term leases), to not recognize a lease liability or ROU asset. Lease liabilities are initially recorded at lease commencement as the present value of future lease payments. ROU assets are initially recorded at lease commencement as the initial amount of the lease liability, together with the following, if applicable: (i) initial direct costs incurred by the lessee and (ii) lease payments made by the lessor, net of lease incentives received, prior to lease commencement.

Over the lease term, the Company generally increases its lease liabilities using the effective interest method and decreases its lease liabilities for lease payments made. The Company generally amortizes its ROU assets over the shorter of the estimated useful life and the lease term and assesses its ROU assets for impairment, similar to other long-lived assets.

For finance leases, amortization expense and interest expense are recognized separately in the Condensed Consolidated Statements of Operations, with amortization expense generally recorded on a straight-line basis and interest expense recorded using the effective interest method. For operating leases, a single lease cost is generally recognized in the Condensed Consolidated Statements of Operations on a straight-line basis over the lease term unless an impairment has been recorded with respect to a leased asset. Lease costs for short-term leases not recognized in the Condensed Consolidated Balance Sheets are recognized in the Condensed Consolidated Statements of Operations on a straight-line basis over the lease term. Variable lease costs not initially included in the lease liability and ROU asset impairment charges are expensed as incurred.

Cloud Computing Arrangements. The Company may from time to time incur costs in connection with hosting arrangements that are service contracts. Subsequent to the Company's January 1, 2019 adoption of Accounting Standards Update (ASU) No. 2018-15, *"Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract"* (ASU 2018-15), which is further described below, the Company capitalizes any such implementation costs, expenses them over the terms of the respective hosting arrangements and subjects them to impairment testing consistent with other long-lived assets.

Recent Accounting Pronouncements

Recently Issued Accounting Pronouncements Not Yet Adopted as of June 30, 2019

In August 2018, the Financial Accounting Standards Board (FASB) issued ASU No. 2018-13, *"Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement"* (ASU 2018-13). ASU 2018-13 modifies the disclosure requirements on fair value measurements in *Accounting Standards Codification Topic 820, Fair Value Measurement*. ASU 2018-13 is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. Certain aspects of ASU 2018-13 require prospective treatment, while others require retrospective treatment. Early adoption is permitted. The Company is currently evaluating the impact of ASU 2018-13 on the Company's disclosures.

In November 2018, the FASB issued ASU No. 2018-18, *"Clarifying the Interaction Between Topic 808 and Topic 606"* (ASU 2018-18). The main provisions of ASU 2018-18 include: (i) clarifying that certain transactions between collaborative arrangement participants should be accounted for as revenue when the collaborative arrangement participant is a customer in the context of a unit of account and (ii) precluding the presentation of transactions with collaborative arrangement participants that are not directly related to sales to third parties together with revenue. ASU 2018-18 is effective for fiscal years beginning after December 15, 2019, and interim periods within those fiscal years. ASU 2018-18 should be applied retrospectively to the date of initial application of *Accounting Standards Codification Topic 606, Revenue from Contracts with Customers* (ASC 606), which was January 1, 2018 for the Company. Early adoption is permitted. The Company is currently evaluating the impact of ASU 2018-18 on the Company's consolidated results of operations, financial position and disclosures.

Recent Accounting Pronouncements Adopted or Otherwise Effective as of June 30, 2019

In February 2016, the FASB issued ASU No. 2016-02, *"Leases (Topic 842)"* (ASU 2016-02) to establish a comprehensive new accounting standard for leases. ASU 2016-02, together with a series of subsequently-issued related ASUs, have been codified in ASC 842. ASC 842 supersedes the lease accounting requirements in *Accounting Standards Codification Topic 840, Leases* (ASC 840), and requires lessees to, among other things, recognize on the balance sheet a right-of-use asset and a right-of-use lease liability, representing the present value of future minimum lease payments, for most leases.

The Company adopted ASC 842 using the modified retrospective approach with an effective date of January 1, 2019 for leases that existed on that date. Prior period results continue to be presented under ASC 840 based on the accounting standards originally in effect for such periods.

The Company has elected certain practical expedients permitted under the transition guidance within ASC 842 to leases that commenced before January 1, 2019, including the package of practical expedients, as well as the practical expedient permitting the Company to not assess whether certain land easements contain leases. Due to the Company's election of these practical expedients, the Company has carried forward certain historical conclusions for existing contracts, including conclusions relating to initial direct costs and to the existence and classification of leases.

On January 1, 2019, as a result of adopting ASC 842, the Company recognized new ROU assets, current lease liabilities and noncurrent lease liabilities associated with operating leases of $59.4 million, $11.0 million and $57.3 million, respectively, which were recorded in the Condensed Consolidated Balance Sheets as Operating lease assets, Current portion of operating lease liabilities and Operating lease liabilities, less current portion, respectively. The Company also derecognized certain assets and liabilities related to existing build-to-suit lease arrangements for which construction was completed prior to the date of transition and recognized new finance lease ROU assets and lease liabilities related to those lease arrangements. The net effect of the Company's adoption of ASC 842 resulted in a net increase to Accumulated deficit of $4.6 million.

In August 2018, the FASB issued ASU 2018-15. ASU 2018-15 aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software (including hosting arrangements where a software license is deemed to exist). ASU 2018-15 also requires the customer to expense any such capitalized implementation costs over the term of the hosting arrangement and to apply the existing impairment guidance for long-lived assets to such capitalized costs. Additionally, ASU 2018-15 sets forth required disclosures and guidance on financial statement classification for expenses, cash flows and balances related to implementation costs within the scope of ASU 2018-15. The Company early adopted this guidance during the first quarter of 2019 on a prospective basis.

NOTE 3. DISCONTINUED OPERATIONS

Astora

The operating results of the Company's Astora business, which the Board of Directors resolved to wind-down in 2016, are reported as Discontinued operations, net of tax in the Condensed Consolidated Statements of Operations for all periods presented.

The following table provides the operating results of Astora Discontinued operations, net of tax, for the three and six months ended June 30, 2019 and 2018 (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Loss from discontinued operations before income taxes	$ (7,953)	$ (8,388)	$ (13,914)	$ (16,139)
Income tax benefit	$ —	$ —	$ —	$ —
Discontinued operations, net of tax	$ (7,953)	$ (8,388)	$ (13,914)	$ (16,139)

Loss from discontinued operations before income taxes includes Litigation-related and other contingencies, net, mesh-related legal defense costs and certain other items.

The cash flows from discontinued operating activities related to Astora included the impact of net losses of $13.9 million and $16.1 million for the six months ended June 30, 2019 and 2018, respectively, and the impact of cash activity related to vaginal mesh cases. There were no material net cash flows related to Astora discontinued investing activities during the six months ended June 30, 2019 or 2018. There was no depreciation or amortization during the six months ended June 30, 2019 or 2018 related to Astora.

NOTE 4. RESTRUCTURING

Set forth below are disclosures relating to restructuring initiatives that resulted in material expenses or cash expenditures during any of the three- or six-month periods ended June 30, 2019 or 2018 or had material restructuring liabilities at either June 30, 2019 or December 31, 2018. Employee separation, retention and certain other employee benefit-related costs related to our restructurings are expensed ratably over the requisite service period. Other restructuring costs are generally expensed as incurred.

2017 Generic Pharmaceuticals Restructuring Initiative

On July 21, 2017, the Company announced that after completing a comprehensive review of its manufacturing network, it would be ceasing operations and closing its manufacturing and distribution facilities in Huntsville, Alabama (the 2017 Generic Pharmaceuticals Restructuring Initiative). The closure of the facilities was completed in June 2018 and the facilities were sold in the fourth quarter of 2018 for net cash proceeds of $23.1 million, resulting in a net gain on disposal of $12.5 million.

As a result of the 2017 Generic Pharmaceuticals Restructuring Initiative, the Company incurred pre-tax charges of $27.1 million and $54.8 million during the three and six months ended June 30, 2018, respectively. During the three months ended June 30, 2018, the expenses consisted of charges relating to accelerated depreciation of $18.0 million, employee separation, retention and other benefit-related costs of $3.9 million and certain other charges of $5.2 million. During the six months ended June 30, 2018, the expenses consisted of charges relating to accelerated depreciation of $35.2 million, employee separation, retention and other benefit-related costs of $7.7 million, asset impairment charges of $2.6 million and certain other charges of $9.3 million. These charges are included in the Generic Pharmaceuticals segment. Accelerated depreciation and employee separation, retention and other benefit-related costs are primarily included in Cost of revenues in the Condensed Consolidated Statements of Operations. Certain other charges are included in both Cost of revenues and Selling, general and administrative expenses in the Condensed Consolidated Statements of Operations.

The Company did not incur any material pre-tax charges as a result of the 2017 Generic Pharmaceuticals Restructuring Initiative during the three and six months ended June 30, 2019 and does not expect to incur additional material pre-tax restructuring-related expenses related to this initiative.

The liability related to the 2017 Generic Pharmaceuticals Restructuring Initiative is primarily included in Accounts payable and accrued expenses in the Condensed Consolidated Balance Sheets. Changes to this liability during the six months ended June 30, 2019 were as follows (in thousands):

	Employee Separation and Other Benefit-Related Costs	Other Restructuring Costs	Total
Liability balance as of January 1, 2019	$ 4,239	$ 48	$ 4,287
Cash distributions	(4,070)	(48)	(4,118)
Liability balance as of June 30, 2019	$ 169	$ —	$ 169

Substantially all cash payments are expected to be made by the end of the third quarter in 2019.

January 2018 Restructuring Initiative

In January 2018, the Company initiated a restructuring initiative that included a reorganization of its Generic Pharmaceuticals segment's research and development network, a further simplification of the Company's manufacturing networks and a company-wide unification of certain corporate functions (the January 2018 Restructuring Initiative). As a result of the January 2018 Restructuring Initiative, the Company incurred pre-tax charges of $0.9 million and $23.8 million during the three and six months ended June 30, 2018, respectively. During the three months ended June 30, 2018, the expenses primarily consisted of employee separation, retention and other benefit-related costs of $0.7 million and certain other charges of $0.2 million. Of the total charges incurred, $0.6 million are included in the Generic Pharmaceuticals segment, $0.1 million are included in the International Pharmaceuticals segment and $0.2 million are included in the Sterile Injectables segment. During the six months ended June 30, 2018, the expenses primarily consisted of employee separation, retention and other benefit-related costs of $22.6 million and certain other charges of $1.2 million. Of the total charges incurred, $10.8 million are included in the Generic Pharmaceuticals segment, $5.2 million are included in Corporate unallocated costs, $4.0 million are included in the Sterile Injectables segment, $3.1 million are included in the International Pharmaceuticals segment and $0.7 million are included in the Branded Pharmaceuticals segment. Employee separation, retention and other benefit-related costs are included in Cost of revenues, Selling, general and administrative and Research and development expenses in the Condensed Consolidated Statements of Operations. Certain other charges are primarily included in Selling, general and administrative expenses in the Condensed Consolidated Statements of Operations.

The Company did not incur any material pre-tax charges as a result of the January 2018 Restructuring Initiative during the three and six months ended June 30, 2019 and does not expect to incur additional material pre-tax restructuring-related expenses related to this initiative. At December 31, 2018, the remaining liability balance was $1.1 million. Substantially all related cash payments were made by the end of the first quarter of 2019.

NOTE 5. SEGMENT RESULTS

During the first quarter of 2019, the Company changed the names of its reportable segments. This change, which was intended to simplify the segments' names, had no impact on the Company's unaudited Condensed Consolidated Financial Statements or segment results for any of the periods presented. The Company's four reportable business segments are set forth below. These segments reflect the level at which the chief operating decision maker regularly reviews financial information to assess performance and to make decisions about resources to be allocated. Each segment derives revenue from the sales or licensing of its respective products and is discussed in more detail below.

We evaluate segment performance based on each segment's adjusted income from continuing operations before income tax, which we define as Loss from continuing operations before income tax and before certain upfront and milestone payments to partners; acquisition-related and integration items, including transaction costs and changes in the fair value of contingent consideration; cost reduction and integration-related initiatives such as separation benefits, retention payments, other exit costs and certain costs associated with integrating an acquired company's operations; asset impairment charges; amortization of intangible assets; inventory step-up recorded as part of our acquisitions; litigation-related and other contingent matters; gains or losses from early termination of debt; gains or losses from the sales of businesses and other assets; foreign currency gains or losses on intercompany financing arrangements; and certain other items.

Certain of the corporate expenses incurred by the Company are not directly attributable to any specific segment. Accordingly, these costs are not allocated to any of the Company's segments and are included in the results below as "Corporate unallocated costs." Interest income and expense are also considered corporate items and not allocated to any of the Company's segments. The Company's consolidated adjusted income from continuing operations before income tax is equal to the combined results of each of its segments less these unallocated corporate items.

Branded Pharmaceuticals

Our Branded Pharmaceuticals segment includes a variety of branded prescription products to treat and manage conditions in urology, urologic oncology, endocrinology, pain and orthopedics. The products in this segment include XIAFLEX®, SUPPRELIN® LA, NASCOBAL® Nasal Spray, AVEED®, PERCOCET®, TESTOPEL®, LIDODERM®, VOLTAREN® Gel, EDEX®, FORTESTA® Gel and TESTIM®, among others.

Sterile Injectables

Our Sterile Injectables segment consists primarily of branded sterile injectable products such as VASOSTRICT®, ADRENALIN® and APLISOL®, among others, and certain generic sterile injectable products, including ertapenem for injection, the authorized generic of Merck Sharp & Dohme Corp's Invanz®, and ephedrine sulfate injection, among others.

Generic Pharmaceuticals

Our Generic Pharmaceuticals segment consists of a differentiated product portfolio including solid oral extended-release, solid oral immediate-release, liquids, semi-solids, patches, powders, ophthalmics and sprays and includes products in the pain management, urology, central nervous system disorders, immunosuppression, oncology, women's health and cardiovascular disease markets, among others.

International Pharmaceuticals

Our International Pharmaceuticals segment includes a variety of specialty pharmaceutical products sold outside the U.S., primarily in Canada through our operating company Paladin Labs Inc. (Paladin). This segment's key products serve growing therapeutic areas, including attention deficit hyperactivity disorder, pain, women's health and oncology.

The following represents selected information for the Company's reportable segments for the three and six months ended June 30, 2019 and 2018 (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Net revenues from external customers:				
Branded Pharmaceuticals	$ 209,013	$ 212,637	$ 412,538	$ 412,872
Sterile Injectables	244,280	217,843	514,328	433,697
Generic Pharmaceuticals	217,784	241,236	436,310	490,476
International Pharmaceuticals (1)	28,650	42,980	56,962	78,178
Total net revenues from external customers	$ 699,727	$ 714,696	$ 1,420,138	$ 1,415,223
Adjusted income from continuing operations before income tax:				
Branded Pharmaceuticals	$ 82,965	$ 83,749	$ 161,973	$ 177,563
Sterile Injectables	172,188	173,308	368,371	342,753
Generic Pharmaceuticals	49,308	90,302	99,305	164,582
International Pharmaceuticals	11,447	18,499	23,542	32,217
Total segment adjusted income from continuing operations before income tax	$ 315,908	$ 365,858	$ 653,191	$ 717,115

(1) Revenues generated by our International Pharmaceuticals segment are primarily attributable to external customers located in Canada.

There were no material revenues from external customers attributed to an individual country outside of the U.S. during any of the periods presented. There were no material tangible long-lived assets in an individual country other than the U.S. as of June 30, 2019 or December 31, 2018.

The table below provides reconciliations of our Total consolidated loss from continuing operations before income tax, which is determined in accordance with U.S. GAAP, to our total segment adjusted income from continuing operations before income tax for the three and six months ended June 30, 2019 and 2018 (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Total consolidated loss from continuing operations before income tax	$ (94,584)	$ (46,244)	$ (96,293)	$ (528,491)
Interest expense, net	134,809	130,059	267,484	254,049
Corporate unallocated costs (1)	38,365	43,046	86,460	95,506
Amortization of intangible assets	140,418	153,215	286,017	310,387
Inventory step-up	—	124	—	190
Upfront and milestone payments to partners	1,444	36,964	2,383	38,296
Separation benefits and other cost reduction initiatives (2)	2,124	29,153	4,149	78,140
Certain litigation-related and other contingencies, net (3)	10,315	19,620	10,321	17,120
Asset impairment charges (4)	88,438	22,767	253,886	471,183
Acquisition-related and integration items (5)	(5,507)	5,161	(43,008)	11,996
Gain on extinguishment of debt	—	—	(119,828)	—
Foreign currency impact related to the remeasurement of intercompany debt instruments	2,262	(574)	3,796	(3,088)
Other, net (6)	(2,176)	(27,433)	(2,176)	(28,173)
Total segment adjusted income from continuing operations before income tax	$ 315,908	$ 365,858	$ 653,191	$ 717,115

(1) Amounts include certain corporate overhead costs, such as headcount, facility and corporate litigation expenses and certain other income and expenses.
(2) Amounts for the three and six months ended June 30, 2019 primarily relate to employee separation costs of $0.4 million and $2.2 million, respectively, and other charges of $1.7 million and $1.9 million, respectively. Amounts for the three and six months ended June 30, 2018 primarily relate to employee separation costs of $5.4 million and $30.6 million, respectively, accelerated depreciation of $18.1 million and $35.2 million, respectively, charges to increase excess inventory reserves of $0.2 million and $2.6 million, respectively, and other charges of $5.4 million and $9.7 million, respectively. These charges were related primarily to our restructuring initiatives. See Note 4. Restructuring for discussion of our material restructuring initiatives.
(3) Amounts include adjustments for Litigation-related and other contingencies, net as further described in Note 13. Commitments and Contingencies.
(4) Amounts primarily relate to charges to impair goodwill and intangible assets as further described in Note 9. Goodwill and Other Intangibles.

(5) Amounts primarily relate to changes in the fair value of contingent consideration.
(6) Amounts primarily relate to gains on sales of businesses and other assets.

Asset information is not reviewed or included within our internal management reporting. Therefore, the Company has not disclosed asset information for each reportable segment.

The Company disaggregates its revenue from contracts with customers into the categories included in the table below (in thousands). The Company believes these categories depict how the nature, timing and uncertainty of revenue and cash flows are affected by economic factors.

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Branded Pharmaceuticals:				
Specialty Products:				
XIAFLEX®	$ 74,855	$ 63,500	$ 143,362	$ 120,641
SUPPRELIN® LA	23,714	19,963	45,770	40,540
Other Specialty (1)	25,524	22,585	49,927	41,612
Total Specialty Products	$ 124,093	$ 106,048	$ 239,059	$ 202,793
Established Products:				
PERCOCET®	$ 28,878	$ 30,833	$ 59,638	$ 62,809
TESTOPEL®	11,780	13,844	27,594	29,014
Other Established (2)	44,262	61,912	86,247	118,256
Total Established Products	$ 84,920	$ 106,589	$ 173,479	$ 210,079
Total Branded Pharmaceuticals (3)	$ 209,013	$ 212,637	$ 412,538	$ 412,872
Sterile Injectables:				
VASOSTRICT®	$ 116,026	$ 106,329	$ 255,163	$ 220,054
ADRENALIN®	45,835	36,658	93,157	66,398
Ertapenem for injection	25,547	—	57,766	—
Other Sterile Injectables (4)	56,872	74,856	108,242	147,245
Total Sterile Injectables (3)	$ 244,280	$ 217,843	$ 514,328	$ 433,697
Total Generic Pharmaceuticals (5)	$ 217,784	$ 241,236	$ 436,310	$ 490,476
Total International Pharmaceuticals (6)	$ 28,650	$ 42,980	$ 56,962	$ 78,178
Total revenues, net	$ 699,727	$ 714,696	$ 1,420,138	$ 1,415,223

(1) Products included within Other Specialty are NASCOBAL® Nasal Spray and AVEED®. Beginning with our first-quarter 2019 reporting, TESTOPEL®, which was previously included in Other Specialty, has been reclassified and is now included in the Established Products portfolio for all periods presented.
(2) Products included within Other Established include, but are not limited to, LIDODERM®, VOLTAREN® Gel, EDEX®, FORTESTA® Gel, and TESTIM®, including the authorized generics of TESTIM® and FORTESTA® Gel.
(3) Individual products presented above represent the top two performing products in each product category for either the three or six months ended June 30, 2019 and/or any product having revenues in excess of $25 million during any quarterly period in 2019 or 2018.
(4) Products included within Other Sterile Injectables include, but are not limited to, APLISOL® and ephedrine sulfate injection.
(5) The Generic Pharmaceuticals segment is comprised of a portfolio of products that are generic versions of branded products, are distributed primarily through the same wholesalers, generally have no intellectual property protection and are sold within the U.S. During the three and six months ended June 30, 2019, colchicine tablets, the authorized generic of Takeda Pharmaceuticals U.S.A., Inc.'s Colcrys®, which launched in July 2018, made up 7% and 6% of consolidated total revenue, respectively. No other individual product within this segment has exceeded 5% of consolidated total revenues for the periods presented.
(6) The International Pharmaceuticals segment, which accounted for 4% of consolidated total revenues during both the three and six months ended June 30, 2019 and 6% of consolidated total revenues during both the three and six months ended June 30, 2018, respectively, includes a variety of specialty pharmaceutical products sold outside the U.S., primarily in Canada through our operating company Paladin.

NOTE 6. FAIR VALUE MEASUREMENTS

Financial Instruments

The financial instruments recorded in our Condensed Consolidated Balance Sheets include cash and cash equivalents (including money market funds), restricted cash and cash equivalents, accounts receivable, equity method investments, accounts payable and accrued expenses, acquisition-related contingent consideration and debt obligations. Included in cash and cash equivalents and restricted cash and cash equivalents are money market funds representing a type of mutual fund required by law to invest in low-risk securities (for example, U.S. government bonds, U.S. Treasury Bills and commercial paper). Money market funds pay dividends that generally reflect short-term interest rates. Due to their short-term maturity, the carrying amounts of non-restricted and restricted cash and cash equivalents (including money market funds), accounts receivable, accounts payable and accrued expenses approximate their fair values.

The following table presents current and noncurrent restricted cash and cash equivalent balances at June 30, 2019 and December 31, 2018 (in thousands):

	June 30, 2019	December 31, 2018
Restricted cash and cash equivalents—current portion (1)	$ 307,587	$ 305,368
Restricted cash and cash equivalents—noncurrent portion (2)	22,357	22,356
Restricted cash and cash equivalents—total (3)	$ 329,944	$ 327,724

(1) These amounts are reported in our Condensed Consolidated Balance Sheets as Restricted cash and cash equivalents.
(2) These amounts are reported in our Condensed Consolidated Balance Sheets as Other assets.
(3) Approximately $306.4 million and $299.7 million of our restricted cash and cash equivalents are held in qualified settlement funds (QSFs) for mesh-related matters at June 30, 2019 and December 31, 2018, respectively. The remaining amount of restricted cash and cash equivalents at June 30, 2019 primarily relates to other litigation-related matters. See Note 13. Commitments and Contingencies for further information.

Fair value guidance establishes a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value. These tiers include:

- Level 1—Quoted prices in active markets for identical assets or liabilities.
- Level 2—Inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.
- Level 3—Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

Acquisition-Related Contingent Consideration

The fair value of contingent consideration liabilities is determined using unobservable inputs; hence, these instruments represent Level 3 measurements within the above-defined fair value hierarchy. These inputs include the estimated amount and timing of projected cash flows, the probability of success (achievement of the contingent event) and the risk-adjusted discount rate used to present value the probability-weighted cash flows. Subsequent to the acquisition date, at each reporting period, the contingent consideration liability is remeasured at current fair value with changes recorded in earnings. Changes in any of these estimated inputs used as of the date of this report could have resulted in significant adjustments to fair value. See Recurring Fair Value Measurements below for additional information on acquisition-related contingent consideration.

Recurring Fair Value Measurements

The Company's financial assets and liabilities measured at fair value on a recurring basis at June 30, 2019 and December 31, 2018 were as follows (in thousands):

	Fair Value Measurements at June 30, 2019 using:			
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Assets:				
Money market funds	$ 308,208	$ —	$ —	$ 308,208
Liabilities:				
Acquisition-related contingent consideration—current	$ —	$ —	$ 20,412	$ 20,412
Acquisition-related contingent consideration—noncurrent	$ —	$ —	$ 32,518	$ 32,518

	Fair Value Measurements at December 31, 2018 using:			
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Assets:				
Money market funds	$ 137,215	$ —	$ —	$ 137,215
Liabilities:				
Acquisition-related contingent consideration—current	$ —	$ —	$ 36,514	$ 36,514
Acquisition-related contingent consideration—noncurrent	$ —	$ —	$ 80,189	$ 80,189

At June 30, 2019 and December 31, 2018, money market funds include $67.1 million and $86.9 million, respectively, in QSFs to be disbursed to mesh-related or other product liability claimants. Amounts in QSFs are considered restricted cash equivalents. See Note 13. Commitments and Contingencies for further discussion of our product liability cases. At June 30, 2019 and December 31, 2018, the differences between the amortized cost and the fair value of our money market funds were not material, individually or in the aggregate.

Fair Value Measurements Using Significant Unobservable Inputs

The following table presents changes to the Company's liability for acquisition-related contingent consideration, which is measured at fair value on a recurring basis using significant unobservable inputs (Level 3), for the three and six months ended June 30, 2019 and 2018 (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Beginning of period	$ 67,842	$ 169,287	$ 116,703	$ 190,442
Amounts settled	(9,574)	(20,967)	(21,165)	(48,734)
Changes in fair value recorded in earnings	(5,507)	4,127	(43,008)	10,962
Effect of currency translation	169	(349)	400	(572)
End of period	$ 52,930	$ 152,098	$ 52,930	$ 152,098

At June 30, 2019, the fair value measurements of the contingent consideration obligations were determined using risk-adjusted discount rates ranging from approximately 9.5% to 15.0% (weighted average rate of approximately 11.4%). Changes in fair value recorded in earnings related to acquisition-related contingent consideration are included in our Condensed Consolidated Statements of Operations as Acquisition-related and integration items. Amounts recorded for the current and noncurrent portions of acquisition-related contingent consideration are included in Accounts payable and accrued expenses and Other liabilities, respectively, in our Condensed Consolidated Balance Sheets.

The following table presents changes to the Company's liability for acquisition-related contingent consideration during the six months ended June 30, 2019 by acquisition (in thousands):

	Balance as of December 31, 2018	Changes in Fair Value Recorded in Earnings	Amounts Settled and Other	Balance as of June 30, 2019
Auxilium acquisition	$ 14,157	$ 730	$ (388)	$ 14,499
Lehigh Valley Technologies, Inc. acquisitions	34,700	(4,531)	(10,069)	20,100
VOLTAREN® Gel acquisition (1)	56,240	(39,023)	(10,038)	7,179
Other	11,606	(184)	(270)	11,152
Total	$ 116,703	$ (43,008)	$ (20,765)	$ 52,930

(1) The change in fair value recorded in earnings includes the impact of certain competitive events occurring during the six months ended June 30, 2019.

Nonrecurring Fair Value Measurements

The Company's financial assets and liabilities measured at fair value on a nonrecurring basis during the six months ended June 30, 2019 were as follows (in thousands):

	Fair Value Measurements during the Six Months Ended June 30, 2019 (1) using:			
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total Expense for the Six Months Ended June 30, 2019
Assets:				
Intangible assets, excluding goodwill (Note 9)	$ —	$ —	$ 41,839	$ (100,399)
Certain property, plant and equipment	—	—	—	(2,379)
Total	$ —	$ —	$ 41,839	$ (102,778)

(1) The fair value amounts are presented as of the date of the fair value measurement as these assets are not measured at fair value on a recurring basis. Such measurements generally occur in connection with our quarter-end financial reporting close procedures.

Additionally, the Company recorded aggregate pre-tax non-cash goodwill impairment charges during the six months ended June 30, 2019 of $151.1 million. Refer to Note 9. Goodwill and Other Intangibles for further description, including the valuation methodologies utilized.

NOTE 7. INVENTORIES

Inventories consist of the following at June 30, 2019 and December 31, 2018 (in thousands):

	June 30, 2019	December 31, 2018
Raw materials (1)	$ 123,819	$ 122,825
Work-in-process (1)	70,377	70,458
Finished goods (1)	141,694	128,896
Total	$ 335,890	$ 322,179

(1) The components of inventory shown in the table above are net of allowance for obsolescence.

Inventory that is in excess of the amount expected to be sold within one year is classified as noncurrent inventory and is not included in the table above. At June 30, 2019 and December 31, 2018, $22.9 million and $8.1 million, respectively, of noncurrent inventory was included in Other assets in the Condensed Consolidated Balance Sheets. As of June 30, 2019 and December 31, 2018, the Company's Condensed Consolidated Balance Sheets included approximately $11.2 million and $12.5 million, respectively, of capitalized pre-launch inventories related to generic and sterile injectable products that were not yet available to be sold.

NOTE 8. LEASES

We have entered into contracts with third parties to lease a variety of assets, including certain real estate, machinery, equipment, automobiles and other assets.

Our leases frequently allow for lease payments that could vary based on factors such as inflation or the degree of utilization of the underlying asset and the incurrence of contractual charges such as those for common area maintenance or utilities.

Renewal and/or early termination options are common in our lease arrangements, particularly with respect to our real estate leases. Our ROU assets and lease liabilities generally exclude periods covered by renewal options and include periods covered by early termination options (based on our conclusion that it is not reasonably certain that we will exercise such options).

Our most significant lease is for our U.S. headquarters in Malvern, Pennsylvania. The initial term of the lease is through 2024 and includes three renewal options, each for an additional 60-month period. These renewal options are not considered reasonably certain of exercise and are therefore excluded from the ROU asset and lease liability.

We are party to certain sublease arrangements, primarily related to our real estate leases, where we act as the lessee and intermediate lessor. For example, we sublease portions of our Malvern, Pennsylvania facility to multiple tenants through sublease arrangements ending in 2024, with certain limited renewal and early termination options.

The following table presents information about the Company's ROU assets and lease liabilities at June 30, 2019 (in thousands):

	Condensed Consolidated Balance Sheets Line Items	June 30, 2019
ROU assets:		
Operating lease ROU assets	Operating lease assets	$ 56,098
Finance lease ROU assets	Property, plant and equipment, net	61,770
Total ROU assets		$ 117,868
Operating lease liabilities:		
Current operating lease liabilities	Current portion of operating lease liabilities	$ 12,092
Noncurrent operating lease liabilities	Operating lease liabilities, less current portion	52,186
Total operating lease liabilities		$ 64,278
Finance lease liabilities:		
Current finance lease liabilities	Accounts payable and accrued expenses	$ 5,748
Noncurrent finance lease liabilities	Other liabilities	33,816
Total finance lease liabilities		$ 39,564

The following table presents information about lease costs and expenses and sublease income for the three and six months ended June 30, 2019 (in thousands):

	Condensed Consolidated Statements of Operations Line Items	Three Months Ended June 30, 2019	Six Months Ended June 30, 2019
Operating lease cost	Various (1)	$ 3,260	$ 6,759
Finance lease cost:			
Amortization of ROU assets	Various (1)	$ 2,489	$ 4,785
Interest on lease liabilities	Interest expense, net	$ 485	$ 985
Other lease costs and income:			
Variable lease costs (2)	Various (1)	$ 2,778	$ 4,867
Sublease income	Various (1)	$ (932)	$ (1,896)

(1) Amounts are included in the Condensed Consolidated Statements of Operations based on the function that the underlying leased asset supports. The following table presents the components of such aggregate amounts for the three and six months ended June 30, 2019 (in thousands):

	Three Months Ended June 30, 2019	Six Months Ended June 30, 2019
Cost of revenues	$ 2,932	$ 5,632
Selling, general and administrative	$ 4,629	$ 8,798
Research and development	$ 34	$ 85

(2) Amounts represent variable lease costs incurred that were not included in the initial measurement of the lease liability, such as common area maintenance and utilities costs associated with leased real estate and certain costs associated with our automobile leases.

The following table, determined in accordance with ASC 842, provides the undiscounted amount of future cash flows included in our lease liabilities at June 30, 2019 for each of the five years subsequent to December 31, 2018 and thereafter, as well as a reconciliation of such undiscounted cash flows to our lease liabilities at June 30, 2019 (in thousands):

	Operating Leases	Finance Leases
2019, excluding amounts already paid	$ 7,501	$ 3,654
2020	13,821	7,450
2021	13,612	7,597
2022	12,471	7,747
2023	10,055	7,901
Thereafter	20,697	21,838
Total future lease payments	$ 78,157	$ 56,187
Less: amount representing interest	13,879	16,623
Present value of future lease payments (lease liability)	$ 64,278	$ 39,564

The Company's future minimum lease commitments as of December 31, 2018 under ASC 840, as reported in the Annual Report, were as follows:

	Capital Leases (1)	Operating Leases
2019	$ 6,884	$ 15,800
2020	6,819	14,519
2021	6,921	12,883
2022	7,072	12,454
2023	7,225	9,945
Thereafter	9,127	20,573
Total minimum lease payments	$ 44,048	$ 86,174
Less: Amount representing interest	4,084	
Total present value of minimum payments	$ 39,964	
Less: Current portion of such obligations	5,845	
Long-term capital lease obligations	$ 34,119	

(1) The Malvern, Pennsylvania headquarters lease arrangement is included under Capital Leases.

The following table provides the weighted average remaining lease term and weighted average discount rates for our leases as of June 30, 2019:

	June 30, 2019
Weighted average remaining lease term (years), weighted based on lease liability balances:	
Operating leases	6.3 years
Finance leases	9.9 years
Weighted average discount rate (percentages), weighted based on the remaining balance of lease payments:	
Operating leases	5.8%
Finance leases	5.5%

The following table provides certain cash flow and supplemental noncash information related to our lease liabilities for the six months ended June 30, 2019 (in thousands):

	Six Months Ended June 30, 2019
Cash paid for amounts included in the measurement of lease liabilities:	
Operating cash payments for operating leases	$ 7,458
Operating cash payments for finance leases	$ 942
Financing cash payments for finance leases	$ 6,656
Lease liabilities arising from obtaining right-of-use assets:	
Operating leases	$ 623
Finance leases	$ 6,045

NOTE 9. GOODWILL AND OTHER INTANGIBLES

Goodwill

Changes in the carrying amount of our goodwill for the six months ended June 30, 2019 were as follows (in thousands):

	Branded Pharmaceuticals	Sterile Injectables	Generic Pharmaceuticals	International Pharmaceuticals	Total
Goodwill as of December 31, 2018	$ 828,818	$ 2,731,193	$ 151,108	$ 53,517	$ 3,764,636
Effect of currency translation	—	—	—	2,169	2,169
Goodwill impairment charges	—	—	(151,108)	—	(151,108)
Goodwill as of June 30, 2019	$ 828,818	$ 2,731,193	$ —	$ 55,686	$ 3,615,697

The carrying amounts of goodwill at June 30, 2019 and December 31, 2018 are net of the following accumulated impairments (in thousands):

	Branded Pharmaceuticals	Sterile Injectables	Generic Pharmaceuticals	International Pharmaceuticals	Total
Accumulated impairment losses as of December 31, 2018	$ 855,810	$ —	$ 2,991,549	$ 456,408	$ 4,303,767
Accumulated impairment losses as of June 30, 2019	$ 855,810	$ —	$ 3,142,657	$ 475,416	$ 4,473,883

Other Intangible Assets

Changes in the amount of other intangible assets for the six months ended June 30, 2019 are set forth in the table below (in thousands).

Cost basis:	Balance as of December 31, 2018	Acquisitions	Impairments	Other (1)	Effect of Currency Translation	Balance as of June 30, 2019
Indefinite-lived intangibles:						
In-process research and development	$ 93,900	$ —	$ —	$ —	$ —	$ 93,900
Total indefinite-lived intangibles	$ 93,900	$ —	$ —	$ —	$ —	$ 93,900
Finite-lived intangibles:						
Licenses (weighted average life of 14 years)	$ 457,402	$ —	$ —	$ —	$ —	$ 457,402
Tradenames	6,409	—	—	—	—	6,409
Developed technology (weighted average life of 11 years)	6,182,015	—	(100,399)	(1,179)	10,273	6,090,710
Total finite-lived intangibles (weighted average life of 11 years)	$ 6,645,826	$ —	$ (100,399)	$ (1,179)	$ 10,273	$ 6,554,521
Total other intangibles	$ 6,739,726	$ —	$ (100,399)	$ (1,179)	$ 10,273	$ 6,648,421

Accumulated amortization:	Balance as of December 31, 2018	Amortization	Impairments	Other (1)	Effect of Currency Translation	Balance as of June 30, 2019
Finite-lived intangibles:						
Licenses	$ (398,182)	$ (7,298)	$ —	$ —	$ —	$ (405,480)
Tradenames	(6,409)	—	—	—	—	(6,409)
Developed technology	(2,877,829)	(278,719)	—	1,179	(5,509)	(3,160,878)
Total other intangibles	$ (3,282,420)	$ (286,017)	$ —	$ 1,179	$ (5,509)	$ (3,572,767)
Net other intangibles	$ 3,457,306					$ 3,075,654

(1) Other adjustments relate to the removal of certain fully amortized intangible assets.

Amortization expense for the three and six months ended June 30, 2019 totaled $140.4 million and $286.0 million, respectively. Amortization expense for the three and six months ended June 30, 2018 totaled $153.2 million and $310.4 million, respectively. Amortization expense is included in Cost of revenues in the Condensed Consolidated Statements of Operations. Estimated amortization of intangibles for the five fiscal years subsequent to December 31, 2018 is as follows (in thousands):

2019	$ 544,094
2020	$ 458,449
2021	$ 416,495
2022	$ 400,592
2023	$ 370,298

Impairments

Endo tests goodwill and indefinite-lived intangible assets for impairment annually and whenever events or changes in circumstances indicate that such assets might be impaired. Our annual assessment is performed as of October 1st.

As part of our goodwill and intangible asset impairment assessments, we estimate the fair values of our reporting units and our intangible assets using an income approach that utilizes a discounted cash flow model or, where appropriate, a market approach. The discounted cash flow models are dependent upon our estimates of future cash flows and other factors. These estimates of future cash flows involve assumptions concerning (i) future operating performance, including future sales, long-term growth rates, operating margins, tax rates, variations in the amount and timing of cash flows and the probability of achieving the estimated cash flows and (ii) future economic conditions. These assumptions are based on significant inputs not observable in the market and thus represent Level 3 measurements within the fair value hierarchy. The discount rates applied to the estimated cash flows are based on the overall risk associated with the particular assets and other market factors. We believe the discount rates and other inputs and assumptions are consistent with those that a market participant would use. Any impairment charges resulting from annual or interim goodwill and intangible asset impairment assessments are recorded to Asset impairment charges in our Condensed Consolidated Statements of Operations.

During the three and six months ended June 30, 2019 and 2018, the Company incurred the following goodwill and other intangible asset impairment charges (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Goodwill impairment charges	$ 65,108	$ —	$ 151,108	$ 391,000
Other intangible asset impairment charges	$ 21,699	$ 22,767	$ 100,399	$ 76,967

A summary of significant goodwill and other intangible asset impairment tests and related charges is included below. Pre-tax non-cash intangible asset impairment charges related primarily to certain in-process research and development and/or developed technology intangible assets that were tested for impairment following changes in market conditions and certain other factors impacting recoverability.

As a result of certain competitive events that occurred during the first quarter of 2019, we tested the goodwill of our Generic Pharmaceuticals reporting unit for impairment as of March 31, 2019. The fair value of the reporting unit was estimated using an income approach that utilized a discounted cash flow model. The discount rate utilized in this test was 10.5%. This goodwill impairment test resulted in a pre-tax non-cash goodwill impairment charge of $86.0 million during the three months ended March 31, 2019, representing the excess of this reporting unit's carrying amount over its estimated fair value. This Generic Pharmaceuticals impairment can be primarily attributed to the impact of the competitive events referenced above and an increase in the discount rate used in the determination of fair value.

During the second quarter of the 2019, unfavorable competitive and pricing events occurred that caused us to update certain assumptions from those used in our first-quarter 2019 Generic Pharmaceuticals goodwill impairment test. The Company considered these events, together with the fact that this reporting unit's carrying amount equaled its fair value immediately subsequent to the first-quarter 2019 goodwill impairment charge, as part of its qualitative assessment of goodwill triggering events for the second quarter of 2019. As a result, we concluded that it was more likely than not that the fair value of this reporting unit was below its carrying amount as of June 30, 2019 and a goodwill impairment test was required. After performing this quantitative test, we determined that this reporting unit's carrying amount exceeded its estimated fair value. The fair value of the reporting unit was estimated using an income approach that utilized a discounted cash flow model. The discount rate utilized in this test was 10.5%. Based on the excess of this reporting unit's carrying amount over its estimated fair value, we recorded a pre-tax non-cash goodwill impairment charge of $65.1 million during the three months ended June 30, 2019, representing the entire remaining amount of this reporting unit's goodwill.

During the first quarter of 2018, a change in segments resulted in changes to our reporting units for goodwill impairment testing purposes, including the creation of a new Sterile Injectables reporting unit, which was previously part of our Generics reporting unit. As a result of these changes, under U.S. GAAP, we tested the goodwill of the former Generics reporting unit immediately before the segment realignment and the goodwill of both the new Sterile Injectables and Generic Pharmaceuticals reporting units immediately after the segment realignment. These goodwill tests were performed using an income approach that utilizes a discounted cash flow model. The results of these goodwill impairment tests were as follows:

- The former Generics reporting unit's estimated fair value exceeded its carrying amount, resulting in no related goodwill impairment charge.
- The new Sterile Injectables reporting unit's estimated fair value exceeded its carrying amount, resulting in no related goodwill impairment charge.
- The new Generic Pharmaceuticals reporting unit's carrying amount exceeded its estimated fair value, resulting in a pre-tax non-cash goodwill impairment charge of $391.0 million.

NOTE 10. CONTRACT ASSETS AND LIABILITIES

Our revenue consists almost entirely of sales of our pharmaceutical products to customers, whereby we ship products to a customer pursuant to a purchase order. Revenue contracts such as these do not generally give rise to contract assets or contract liabilities because: (i) the underlying contracts generally have only a single performance obligation and (ii) we do not generally receive consideration until the performance obligation is fully satisfied. At June 30, 2019, the unfulfilled performance obligations for these types of contracts relate to ordered but undelivered products. We generally expect to fulfill the performance obligations and recognize revenue within one week of entering into the underlying contract. Based on the short-term initial contract duration, additional disclosure about the remaining performance obligations is not required.

Certain of our other revenue-generating contracts, including license and collaboration agreements, may result in contract assets and/or contract liabilities. For example, we may recognize contract liabilities upon receipt of certain upfront and milestone payments from customers when there are remaining performance obligations.

The following table shows the opening and closing balances of contract assets and contract liabilities from contracts with customers (dollars in thousands):

	June 30, 2019	December 31, 2018	$ Change	% Change
Contract assets, net (1)	$ 6,503	$ 12,065	$ (5,562)	(46)%
Contract liabilities, net (2)	$ 21,893	$ 19,217	$ 2,676	14 %

(1) At June 30, 2019 and December 31, 2018, approximately $6.5 million and $9.3 million, respectively, of these contract asset amounts are classified as current assets and are included in Prepaid expenses and other current assets in the Company's Condensed Consolidated Balance Sheets. The remaining amounts are classified as noncurrent and are included in Other assets. The net decrease in contract assets during the six months ended June 30, 2019 was primarily due to reclassifications to accounts receivable following the resolution of certain conditions other than the passage of time affecting the Company's rights to consideration for the sale of certain goods, partially offset by certain sales activity during the period.

(2) At June 30, 2019 and December 31, 2018, approximately $3.4 million and $1.7 million, respectively, of these contract liability amounts are classified as current liabilities and are included in Accounts payable and accrued expenses in the Company's Condensed Consolidated Balance Sheets. The remaining amounts are classified as noncurrent and are included in Other liabilities. During the six months ended June 30, 2019, the Company entered into new contracts resulting in an increase to contract liabilities of approximately $4.0 million. This increase was partially offset by approximately $1.0 million in revenue recognized during the period.

During the six months ended June 30, 2019, we recognized revenue of $6.7 million relating to performance obligations satisfied, or partially satisfied, in prior periods. Such revenue generally relates to changes in estimates with respect to our variable consideration.

NOTE 11. ACCOUNTS PAYABLE AND ACCRUED EXPENSES

Accounts payable and accrued expenses include the following at June 30, 2019 and December 31, 2018 (in thousands):

	June 30, 2019	December 31, 2018
Trade accounts payable	$ 120,366	$ 96,024
Returns and allowances	217,902	236,946
Rebates	124,050	144,860
Chargebacks	1,702	2,971
Accrued interest	114,232	130,182
Accrued payroll and related benefits	55,022	89,895
Accrued royalties and other distribution partner payables	106,305	122,028
Acquisition-related contingent consideration—current	20,412	36,514
Other	171,216	149,780
Total	$ 931,207	$ 1,009,200

NOTE 12. DEBT

The following table presents information about the Company's total indebtedness at June 30, 2019 and December 31, 2018 (dollars in thousands):

	June 30, 2019			December 31, 2018		
	Effective Interest Rate	Principal Amount	Carrying Amount	Effective Interest Rate	Principal Amount	Carrying Amount
7.25% Senior Notes due 2022	7.25%	$ 8,294	$ 8,294	7.91%	$ 400,000	$ 392,947
5.75% Senior Notes due 2022	5.75%	182,479	182,462	6.04%	700,000	694,464
5.375% Senior Notes due 2023	5.62%	210,440	208,807	5.62%	750,000	743,438
6.00% Senior Notes due 2023	6.28%	1,439,840	1,425,407	6.28%	1,635,000	1,616,817
5.875% Senior Secured Notes due 2024	6.14%	300,000	296,351	6.14%	300,000	296,062
6.00% Senior Notes due 2025	6.27%	1,200,000	1,184,554	6.27%	1,200,000	1,183,415
7.50% Senior Secured Notes due 2027	7.71%	1,500,000	1,481,316		—	—
Term Loan B Facility Due 2024	6.96%	3,346,700	3,316,931	7.02%	3,363,775	3,331,276
Revolving Credit Facility	4.94%	300,000	300,000		—	—
Total long-term debt, net		$ 8,487,753	$ 8,404,122		$ 8,348,775	$ 8,258,419
Less current portion, net		34,150	34,150		34,150	34,150
Total long-term debt, less current portion, net		$ 8,453,603	$ 8,369,972		$ 8,314,625	$ 8,224,269

The Company and its subsidiaries, with certain customary exceptions, guarantee or serve as issuers or borrowers of the debt instruments representing substantially all of the Company's indebtedness at June 30, 2019. The obligations under (i) all of the senior secured notes and (ii) the Credit Agreement (as defined below) and related loan documents are secured on a *pari passu* basis by a perfected first priority (subject to certain permitted liens) lien on the collateral securing such instruments, which collateral represents substantially all of the assets of the issuers or borrowers and the guarantors party thereto (subject to customary exceptions). Our senior unsecured notes are unsecured and effectively subordinated in right of priority to our credit agreement and our senior secured notes, in each case to the extent of the value of the collateral securing such instruments.

The aggregate estimated fair value of the Company's long-term debt, which was estimated using inputs based on quoted market prices for the same or similar debt issuances, was $7.4 billion and $7.2 billion at June 30, 2019 and December 31, 2018, respectively. Based on this valuation methodology, we determined these debt instruments represent Level 2 measurements within the fair value hierarchy.

Senior Notes and Senior Secured Notes

At June 30, 2019 and December 31, 2018, we were in compliance with all covenants contained in the indentures governing our various senior notes and senior secured notes.

Credit Facilities

The credit facilities consist of a $1,000.0 million revolving credit facility (the Revolving Credit Facility) and a senior secured term loan facility (the Term Loan Facility and, together with the Revolving Credit Facility, the Credit Facilities). In June 2019, the Company borrowed $300.0 million under the Revolving Credit Facility. The Company expects to use the proceeds from this borrowing for purposes consistent with the Company's capital allocation priorities, including for general corporate purposes.

After giving effect to this transaction and previously issued and outstanding letters of credit, approximately $696.8 million of remaining credit is available under the Revolving Credit Facility. However, the Company's debt agreements contain certain conditions that limit the Company's ability to incur additional secured indebtedness, including borrowings under the Revolving Credit Facility, which significantly restrict the Company's access to this remaining available credit.

At June 30, 2019 and December 31, 2018, we were in compliance with all covenants contained in the Credit Agreement (as defined below).

March 2019 Refinancing

In March 2019, the Company executed several transactions (the March 2019 Refinancing Transactions), which included:

- the entry into an amendment (the Revolving Credit Facility Amendment) to the Company's existing credit agreement, which was originally dated April 27, 2017 (the Credit Agreement);
- the issuance of $1,500.0 million of 7.50% Senior Secured Notes due 2027 (the 2027 Notes);

- the repurchase of $1,642.2 million aggregate principal amount of certain of the Company's senior unsecured notes for $1,500.0 million in cash, excluding accrued interest (the Notes Repurchases); and
- the solicitation of consents from the holders of the existing 7.25% Senior Notes due 2022 and 5.75% Senior Notes due 2022 (together, the Consent Notes) to certain amendments to the indentures governing such notes, which eliminated substantially all of the restrictive covenants, certain events of default and other provisions contained in each such indenture.

The Revolving Credit Facility Amendment amended the Credit Agreement to, among other things, (i) extend the maturity of the commitments under the Revolving Credit Facility from April 2022 to March 2024 (with the exception of $76.0 million of commitments that were not extended), (ii) provide greater covenant flexibility by increasing the maximum Secured Net Leverage Ratio described in the Financial Covenant (as defined in the Credit Agreement) from 3.50:1.00 to 4.50:1.00 and (iii) limit the scenarios under which such Financial Covenant will be tested.

The 2027 Notes were issued by Par Pharmaceutical, Inc. (PPI), a wholly-owned indirect subsidiary of the Company, in a private offering to "qualified institutional buyers" (as defined in Rule 144A under the Securities Act) and outside the U.S. to non-U.S. persons in compliance with Regulation S under the Securities Act. The 2027 Notes are guaranteed on a senior secured basis by the Company and its subsidiaries that also guarantee the Credit Agreement (collectively, the Guarantors). The 2027 Notes are senior secured obligations of PPI and the Guarantors and are secured by the same collateral that secures the Credit Agreement and the Company's existing senior secured notes. Interest on the 2027 Notes is payable semiannually in arrears on April 1 and October 1 of each year, beginning on October 1, 2019.

The 2027 Notes will mature on April 1, 2027; however, the indenture governing these notes allows for redemption prior to maturity, in whole or in part, subject to certain restrictions and limitations described therein, in the following ways:

- Before April 1, 2022, the 2027 Notes may be redeemed, in whole or in part, by paying the sum of: (i) 100% of the principal amount being redeemed, (ii) an applicable make-whole premium as described in the indenture and (iii) accrued and unpaid interest, if any, to, but not including, the date of redemption.
- On or after April 1, 2022, the 2027 Notes may be redeemed, in whole or in part, at redemption prices set forth in the indenture, plus accrued and unpaid interest, if any, to, but not including, the date of redemption. The redemption prices for the 2027 Notes vary over time pursuant to a step-down schedule set forth in the indenture, beginning at 105.625% of the principal amount redeemed and decreasing to 100% by April 1, 2025.
- Before April 1, 2022, the 2027 Notes may be redeemed, in part (up to 35% of the principal amount outstanding) with the net cash proceeds from specified equity offerings at 107.500% of the principal amount redeemed, plus accrued and unpaid interest, if any, to, but not including, the date of redemption.

The 2027 Notes indenture contains covenants that, among other things, restrict the Company's ability and the ability of its Restricted Subsidiaries (as defined in the indenture) to incur certain additional indebtedness and issue preferred stock; make certain dividends, distributions, investments and other restricted payments; sell certain assets; enter into sale and leaseback transactions; agree to certain restrictions on the ability of restricted subsidiaries to make certain payments to the Company or any of its restricted subsidiaries; create certain liens; merge, consolidate or sell all or substantially all of the Company's assets; enter into certain transactions with affiliates or designate subsidiaries as unrestricted subsidiaries. These covenants are subject to a number of exceptions and qualifications, including the fall away or revision of certain of these covenants and release of collateral upon the 2027 Notes receiving investment grade credit ratings.

The Company used the net proceeds of the 2027 Notes and cash on hand primarily to fund the Notes Repurchases and to pay certain premiums, fees and expenses related thereto. The Notes Repurchases were completed by Endo Finance LLC (Endo Finance), a wholly-owned subsidiary of the Company, pursuant to a tender offer to repurchase portions of the Company's outstanding 7.25% Senior Notes due 2022, 5.75% Senior Notes due 2022, 5.375% Senior Notes due 2023 and 6.00% Senior Notes due 2023. In connection with the Notes Repurchases, Endo Finance repurchased $1,642.2 million of senior unsecured note indebtedness, representing the aggregate principal amount repurchased, for $1,500.0 million in cash (including certain cash premiums related thereto). The $1,642.2 million aggregate repurchase amount consisted of (i) $389.9 million aggregate principal amount of the 7.25% Senior Notes due 2022, (ii) $517.5 million aggregate principal amount of the 5.75% Senior Notes due 2022, (iii) $539.6 million aggregate principal amount of the 5.375% Senior Notes due 2023 and (iv) $195.2 million aggregate principal amount of the 6.00% Senior Notes due 2023. The aggregate carrying amount of notes repurchased was $1,624.0 million. In conjunction with the Notes Repurchases, Endo Finance also solicited consents from holders of the Consent Notes to certain proposed amendments to the applicable indentures under which each series of Consent Notes were issued, which would eliminate substantially all restrictive covenants, certain events of default and certain other provisions contained in each such indenture. The proposed amendments were effected pursuant to a supplemental indenture to each such indenture executed by Endo Finance and the guarantors of the Consent Notes, which became operative upon the repurchase of at least the requisite consent amount of the applicable series of Consent Notes tendered.

The difference between the cash paid and the carrying amount of notes repurchased in the Notes Repurchases resulted in a $124.0 million gain recorded as Gain on extinguishment of debt in the Condensed Consolidated Statements of Operations. In connection with the March 2019 Refinancing Transactions, we also incurred costs and fees totaling $26.2 million, of which $4.2 million related to the Notes Repurchases, $19.1 million related to the 2027 Notes issuance and $2.9 million related to the Revolving Credit Facility Amendment. The costs incurred in connection with the Notes Repurchases were charged to expense in the first quarter of 2019 and recorded as an offset to the Gain on extinguishment of debt. The costs incurred in connection with the 2027 Notes issuance and the Revolving Credit Facility Amendment, together with previously deferred debt issuance costs associated with the Revolving Credit Facility, have been deferred and will be amortized as interest expense over the terms of the respective instruments.

Maturities

The following table presents the maturities on our long-term debt for each of the five fiscal years subsequent to December 31, 2018 (in thousands):

	Maturities (1)
2019	$ 34,150
2020	$ 34,150
2021	$ 34,150
2022 (2)	$ 247,723
2023	$ 1,684,430

(1) Certain amounts borrowed pursuant to the Credit Facilities will immediately mature if certain of our senior notes are not refinanced or repaid in full prior to the date that is 91 days prior to the respective stated maturity dates thereof. Accordingly, we may seek to repay or refinance certain senior notes prior to their stated maturity dates. The amounts in this maturities table do not reflect any such early repayment or refinancing; rather, they reflect stated maturity dates.

(2) This amount includes $22.8 million, representing the portion of our borrowing under the Revolving Credit Facility associated with the commitments that were not extended in connection with the March 2019 Refinancing Transactions.

NOTE 13. COMMITMENTS AND CONTINGENCIES

Legal Proceedings and Investigations

We and certain of our subsidiaries are involved in various claims, legal proceedings and internal and governmental investigations (collectively, proceedings) that arise from time to time, including, among others, those relating to product liability, intellectual property, regulatory compliance, consumer protection, tax and commercial matters. While we cannot predict the outcome of these proceedings and we intend to vigorously prosecute or defend our position as appropriate, there can be no assurance that we will be successful or obtain any requested relief, and an adverse outcome in any of these proceedings could have a material adverse effect on our business, financial condition, results of operations and cash flows. Matters that are not being disclosed herein are, in the opinion of our management, immaterial both individually and in the aggregate with respect to our financial position, results of operations and cash flows. If and when such matters, in the opinion of our management, become material, either individually or in the aggregate, we will disclose them.

We believe that certain settlements and judgments, as well as legal defense costs, relating to certain product liability or other matters are or may be covered in whole or in part under our insurance policies with a number of insurance carriers. In certain circumstances, insurance carriers reserve their rights to contest or deny coverage. We intend to contest vigorously any and all disputes with our insurance carriers and to enforce our rights under the terms of our insurance policies. Accordingly, we will record receivables with respect to amounts due under these policies only when the realization of the potential claim for recovery is considered probable. Amounts recovered under our insurance policies could be materially less than the stated coverage limits and may not be adequate to cover damages, other relief and/or costs relating to claims. In addition, there is no guarantee that insurers will pay claims or that coverage will otherwise be available.

As of June 30, 2019, our accrual for loss contingencies totaled $854.8 million, the most significant components of which relate to product liability and related matters associated with vaginal mesh and testosterone. Although we believe there is a reasonable possibility that a loss in excess of the amount recognized exists, we are unable to estimate the possible loss or range of loss in excess of the amount recognized at this time. While the timing of the resolution of certain of the matters accrued for as loss contingencies remains uncertain and could extend beyond 12 months, as of June 30, 2019, the entire liability accrual amount is classified in the Current portion of legal settlement accrual in the Condensed Consolidated Balance Sheets.

Product Liability and Related Matters

We and certain of our subsidiaries have been named as defendants in numerous lawsuits in various U.S. federal and state courts, as well as in Canada and other countries, alleging personal injury resulting from the use of certain products of our subsidiaries. These and other related matters are described below in more detail.

Vaginal Mesh. Since 2008, we and certain of our subsidiaries, including American Medical Systems Holdings, Inc. (subsequently converted to Astora Women's Health Holding LLC and merged into Astora Women's Health LLC and referred to herein as AMS and/or Astora), have been named as defendants in multiple lawsuits in various state and federal courts in the U.S. (including a federal multidistrict litigation (MDL) pending in the U.S. District Court for the Southern District of West Virginia (MDL No. 2325)), and in Canada and other countries, alleging personal injury resulting from the use of transvaginal surgical mesh products designed to treat pelvic organ prolapse (POP) and stress urinary incontinence (SUI). In January 2018, a representative proceeding (class action) was filed in the Federal Court of Australia against American Medical Systems, LLC. In the various class action and individual complaints, plaintiffs claim a variety of personal injuries, including chronic pain, incontinence, inability to control bowel function and permanent deformities, and seek compensatory and punitive damages, where available.

We and certain plaintiffs' counsel representing mesh-related product liability claimants have entered into various Master Settlement Agreements (MSAs) and other agreements to resolve up to approximately 71,000 filed and unfiled mesh claims handled or controlled by the participating counsel. These MSAs and other agreements were entered into at various times between June 2013 and the present, were solely by way of compromise and settlement and were not in any way an admission of liability or fault by us or any of our subsidiaries.

All MSAs are subject to a process that includes guidelines and procedures for administering the settlements and the release of funds. In certain cases, the MSAs provide for the creation of QSFs into which funds may be deposited pursuant to certain schedules set forth in those agreements. All MSAs have participation requirements regarding the claims represented by each law firm party to the MSA. In addition, one agreement gives us a unilateral right of approval regarding which claims may be eligible to participate under that settlement. To the extent fewer claims than are authorized under an agreement participate, the total settlement payment under that agreement will be reduced by an agreed-upon amount for each such non-participating claim. Funds deposited in QSFs are considered restricted cash and/or restricted cash equivalents.

Distribution of funds to any individual claimant is conditioned upon the receipt of documentation substantiating the validity of the claim, a full release and dismissal of the entire action or claim as to all AMS parties and affiliates. Prior to receiving funds, an individual claimant is required to represent and warrant that liens, assignment rights or other claims identified in the claims administration process have been or will be satisfied by the individual claimant. Confidentiality provisions apply to the amount of settlement awards to participating claimants, the claims evaluation process and procedures used in conjunction with award distributions, and the negotiations leading to the settlements.

In June 2017, the MDL court entered a case management order which, among other things, requires plaintiffs in newly-filed MDL cases to provide expert disclosures on specific causation within one hundred twenty (120) days of filing a claim (the Order). Under the Order, a plaintiff's failure to meet the foregoing deadline may be grounds for the entry of judgment against such plaintiff. In July 2017, a similar order was entered in Minnesota state court. In June 2018, at the request of the MDL court, the Judicial Panel on Multidistrict Litigation entered a minute order suspending the transfer of cases into the MDL. Subsequently, the MDL court issued a pretrial order discontinuing the direct filing of claims in MDL No. 2325. The MDL court also issued similar orders in other MDLs involving claims against other mesh manufacturers.

The following table presents the changes in the QSFs and mesh liability accrual balances during the six months ended June 30, 2019 (in thousands):

	Qualified Settlement Funds	Mesh Liability Accrual
Balance as of January 1, 2019	$ 299,733	$ 748,606
Additional charges	—	—
Cash contributions to Qualified Settlement Funds	155,995	—
Cash distributions to settle disputes from Qualified Settlement Funds	(151,388)	(151,388)
Cash distributions to settle disputes	—	(11,428)
Other (1)	2,101	2,101
Balance as of June 30, 2019	$ 306,441	$ 587,891

(1) Amounts deposited in the QSFs may earn interest, which is generally used to pay administrative costs of the fund and is reflected in the table above as an increase to the QSF and Mesh Liability Accrual balances. Any interest remaining after all claims have been paid will generally be distributed to the claimants who participated in that settlement.

Charges related to vaginal mesh liability and associated legal fees and other expenses for all periods presented are reported in Discontinued operations, net of tax in our Condensed Consolidated Statements of Operations.

To date, the Company has made total mesh liability payments of approximately $3.4 billion, $306.4 million of which remains in the QSFs as of June 30, 2019. We currently expect to fund into the QSFs the remaining payments under all settlement agreements during 2019. As the funds are disbursed out of the QSFs from time to time, the liability accrual will be reduced accordingly with a corresponding reduction to restricted cash and cash equivalents. In addition, we may pay cash distributions to settle disputes separate from the QSFs, which will also decrease the liability accrual and decrease cash and cash equivalents.

We were contacted in October 2012 regarding a civil investigation initiated by various state attorneys general into mesh products, including transvaginal surgical mesh products designed to treat POP and SUI. In November 2013, we received a subpoena relating to this investigation from the state of California, and we have subsequently received additional subpoenas from California and other states. We are cooperating with the investigations.

We will continue to vigorously defend any unresolved claims and to explore other options as appropriate in our best interests. Similar matters may be brought by others or the foregoing matters may be expanded. We are unable to predict the outcome of these matters or to estimate the possible range of any additional losses that could be incurred.

Although the Company believes it has appropriately estimated the probable total amount of loss associated with all mesh-related matters as of the date of this report, fact and expert discovery is ongoing in certain cases that have not settled, and it is reasonably possible that further claims may be filed or asserted and that adjustments to our overall liability accrual may be required. This could have a material adverse effect on our business, financial condition, results of operations and cash flows.

Testosterone. Various manufacturers of prescription medications containing testosterone, including our subsidiaries Endo Pharmaceuticals Inc. (EPI) and Auxilium Pharmaceuticals, Inc. (subsequently converted to Auxilium Pharmaceuticals, LLC and hereinafter referred to as Auxilium), have been named as defendants in multiple lawsuits alleging personal injury resulting from the use of such medications, including FORTESTA® Gel, DELATESTRYL®, TESTIM®, TESTOPEL®, AVEED® and STRIANT®. Plaintiffs in these suits generally allege various personal injuries, including pulmonary embolism, stroke or other vascular and/or cardiac injuries, and seek compensatory and/or punitive damages, where available.

As of July 29, 2019, we were aware of approximately 899 testosterone cases (some of which may have been filed on behalf of multiple plaintiffs) pending against one or more of our subsidiaries. These cases have been coordinated in a federal MDL pending in the U.S. District Court for the Northern District of Illinois (MDL No. 2545). An MDL trial against Auxilium involving TESTIM® took place in November 2017 and resulted in a defense verdict. A trial against Auxilium involving TESTIM® was scheduled for January 2018 in the Philadelphia Court of Common Pleas but resolved prior to trial.

In June 2018, counsel for plaintiffs, on the one hand, and Auxilium and EPI, on the other, executed an MSA allowing for the resolution of all known testosterone replacement therapy product liability claims against our subsidiaries. The MSA was solely by way of compromise and settlement and was not in any way an admission of fault by us or any of our subsidiaries.

The MSA is subject to a process that includes guidelines and procedures for administering the settlement and the release of funds. Among other things, the MSA provides for the creation of a QSF into which the settlement funds will be deposited, establishes participation requirements and allows for a reduction of the total settlement payment in the event the participation threshold is not met. Distribution of funds to any individual claimant is conditioned upon the receipt of documentation substantiating product use and injury as determined by a third-party special master, the dismissal of any lawsuit and the release of the claim as to us and all affiliates. Prior to receiving funds, an individual claimant must represent and warrant that liens, assignment rights or other claims identified in the claims administration process have been or will be satisfied by the individual claimant. Confidentiality provisions apply to the settlement funds, amounts allocated to individual claimants and other terms of the agreement.

The MDL also included a lawsuit filed in November 2014 in the U.S. District for the Northern District of Illinois against EPI, Auxilium and various other manufacturers of testosterone products on behalf of a proposed class of health insurance companies and other third party payers that claim to have paid for certain testosterone products. This lawsuit is not part of the settlement described above. After a series of motions to dismiss, plaintiff filed a third amended complaint in April 2016, asserting civil claims for alleged violations of the Racketeer Influenced and Corrupt Organizations Act and negligent misrepresentation based on defendants' marketing of certain testosterone products. The court denied a motion to dismiss this complaint in August 2016. In July 2018, the court denied plaintiff's motion for class certification. In February 2019, the court granted defendants' motion for summary judgment. Plaintiff has appealed to the U.S. Court of Appeals for the Seventh Circuit.

We will continue to vigorously defend any unresolved claims and to explore other options as appropriate in our best interests. Similar matters may be brought by others or the foregoing matters may be expanded. We are unable to predict the outcome of these matters or to estimate the possible range of any additional losses that could be incurred.

Although the Company believes it has appropriately estimated the probable total amount of loss associated with testosterone-related matters as of the date of this report, it is reasonably possible that further claims may be filed or asserted and that adjustments to our overall liability accrual may be required. This could have a material adverse effect on our business, financial condition, results of operations and cash flows.

Opioid-Related Matters

Since 2014, multiple U.S. states, counties, other governmental persons or entities and private plaintiffs have filed suit against us and/or certain of our subsidiaries, including Endo Health Solutions Inc. (EHSI), EPI, PPI, Par Pharmaceutical Companies, Inc. (PPCI), Endo Generics Holdings, Inc. (EGHI), Vintage Pharmaceuticals, LLC, Generics Bidco I, LLC and DAVA Pharmaceuticals, LLC, as well as various other manufacturers, distributors and/or others, asserting claims relating to defendants' alleged sales, marketing and/or distribution practices with respect to prescription opioid medications, including certain of our products. As of July 29, 2019, the cases of which we were aware include, but are not limited to, approximately 18 cases filed by or on behalf of states; approximately 2,300 cases filed by counties, cities, Native American tribes and/or other government-related persons or entities; approximately 153 cases filed by hospitals, health systems, unions, health and welfare funds or other third-party payers and approximately 131 cases filed by individuals. Certain of the cases have been filed as putative class actions. In addition to the litigation in the U.S., in August 2018, an action against Paladin Labs Inc., EPI, the Company and various other manufacturers and distributors was commenced in British Columbia on behalf of a proposed class of all federal, provincial and territorial governments and agencies in Canada that paid healthcare, pharmaceutical and treatment costs related to opioids. In May 2019, two putative class actions were filed in Canada, seeking relief on behalf of Canadian residents who were prescribed opioid medications. One of the actions (filed in Ontario Superior Court) names Paladin Labs Inc., the Company and EPI along with several other defendants, and the other action (filed in Quebec Superior Court) names Paladin Labs Inc. along with several other defendants.

Many of the U.S. cases have been coordinated in a federal MDL pending in the U.S. District Court for the Northern District of Ohio (MDL No. 2804). In March 2018, the U.S. Department of Justice (DOJ) filed a statement of interest in the case, and in April 2018 it filed a motion to participate in settlement discussions as a friend of the court, which the MDL court granted. The MDL court has issued a series of case management orders permitting motions to dismiss addressing threshold legal issues in certain cases (and has issued orders granting in part and denying in part some of those motions), setting a trial date in October 2019 for the claims of two Ohio counties (Track One plaintiffs), allowing certain discovery and establishing certain other deadlines and procedures, among other things. In June 2019, defendants in the Track One cases, including our subsidiaries, filed various motions for summary judgment, and the Track One plaintiffs also filed motions for summary judgment on certain issues.

Other cases remain pending in various state courts. In some jurisdictions, such as Connecticut, Illinois, New York, Pennsylvania, South Carolina, Texas and West Virginia, certain state court cases have been transferred to a single court within their respective state court systems for coordinated pretrial proceedings. The state cases are generally at the pleading and/or discovery stage with certain of these cases scheduled for trial beginning in 2020.

The complaints in the cases assert a variety of claims including, but not limited to, claims for alleged violations of public nuisance, consumer protection, unfair trade practices, racketeering, Medicaid fraud and/or drug dealer liability statutes and/or common law claims for public nuisance, fraud/misrepresentation, strict liability, negligence and/or unjust enrichment. The claims are generally based on alleged misrepresentations and/or omissions in connection with the sale and marketing of prescription opioid medications and/or an alleged failure to take adequate steps to prevent abuse and diversion. Plaintiffs generally seek declaratory and/or injunctive relief; compensatory, punitive and/or treble damages; restitution, disgorgement, civil penalties, abatement, attorneys' fees, costs and/or other relief.

We will continue to vigorously defend the foregoing matters and to explore other options as appropriate in our best interests. Similar matters may be brought by others or the foregoing matters may be expanded. We are unable to predict the outcome of these matters or to estimate the possible range of any losses that could be incurred. Adjustments to our overall liability accrual may be required in the future, which could have a material adverse effect on our business, financial condition, results of operations and cash flows.

In addition to the lawsuits described above, the Company and/or its subsidiaries have received certain subpoenas, civil investigative demands (CIDs) and informal requests for information concerning the sale, marketing and/or distribution of prescription opioid medications, including the following:

Various state attorneys general have served subpoenas and/or CIDs on EHSI and/or EPI. We are cooperating with the investigations.

In January 2018, our subsidiary EPI received a federal grand jury subpoena from the U.S. District Court for the Southern District of Florida in connection with an investigation being conducted by the U.S. Attorney's Office for the Southern District of Florida. The subpoena seeks information related to OPANA® ER, other oxymorphone products and marketing of opioid medications. We are cooperating with the investigation.

Similar investigations may be brought by others or the foregoing matters may be expanded or result in litigation. We are unable to predict the outcome of these matters or to estimate the possible range of any losses that could be incurred. Adjustments to our overall liability accrual may be required in the future, which could have a material adverse effect on our business, financial condition, results of operations and cash flows.

Generic Drug Pricing Matters

In December 2014, we received a grand jury subpoena from the Antitrust Division of the DOJ issued by the U.S. District Court for the Eastern District of Pennsylvania addressed to Par Pharmaceuticals. The subpoena requested documents and information focused primarily on product and pricing information relating to the authorized generic version of Lanoxin (digoxin) oral tablets and generic doxycycline products, and on communications with competitors and others regarding those products. We are cooperating with the investigation.

In May 2018, we and our subsidiary PPCI each received a CID from the DOJ in relation to a False Claims Act investigation concerning whether generic pharmaceutical manufacturers engaged in price-fixing and market allocation agreements, paid illegal remuneration and caused the submission of false claims. We are cooperating with the investigation.

Similar investigations may be brought by others or the foregoing matters may be expanded or result in litigation. We are unable to predict the outcome of these matters or to estimate the possible range of any losses that could be incurred. Adjustments to our overall liability accrual may be required in the future, which could have a material adverse effect on our business, financial condition, results of operations and cash flows.

Since March 2016, various private plaintiffs and state attorneys general have filed cases against our subsidiary PPI and/or, in some instances, the Company, Generics Bidco I, LLC, DAVA Pharmaceuticals, LLC and/or PPCI, as well as other pharmaceutical manufacturers and, in some instances, other corporate and/or individual defendants, alleging price-fixing and other anticompetitive conduct with respect to generic pharmaceutical products. These cases, which include proposed class actions filed on behalf of direct purchasers, end-payers and indirect purchaser resellers, as well as non-class action suits, have been consolidated and/or coordinated for pretrial proceedings in a federal MDL pending in the U.S. District Court for the Eastern District of Pennsylvania under the caption *In re Generic Pharmaceuticals Pricing Antitrust Litigation* (MDL No. 2724).

The various complaints and amended complaints generally assert claims under federal and/or state antitrust law, state consumer protection statutes and/or state common law, and seek damages, treble damages, civil penalties, disgorgement, declaratory and injunctive relief, costs and attorneys' fees. Some claims are based on alleged product-specific conspiracies. The allegations relating to our subsidiaries in certain of the various complaints focus primarily on one or more of the following products: amitriptyline, baclofen, budesonide, digoxin, divalproex ER, doxycycline hyclate, doxycycline monohydrate, entecavir, fluoxetine, flutamide, hydroxyurea, labetalol, nystatin, omega-3-acid ethyl esters, propranolol and/or zoledronic acid. Other claims allege broader, multiple-product conspiracies involving various combinations of these and/or other products. Under these overarching conspiracy theories, plaintiffs seek to hold all alleged participants in a particular conspiracy jointly and severally liable for all harms caused by the alleged conspiracy, not just harms related to the products manufactured and/or sold by a particular defendant.

In October 2018, the MDL court denied defendants' motions to dismiss federal antitrust claims relating to digoxin, divalproex ER and doxycycline hyclate, among other products. In February 2019, the MDL court dismissed certain state law claims relating to these same products, but allowed other state law claims relating to those products to proceed. In February 2019, the defendants moved to dismiss plaintiffs' overarching conspiracy claims; that motion remains pending. The MDL court has also allowed certain discovery.

We will continue to vigorously defend the foregoing matters and to explore other options as appropriate in our best interests. Similar matters may be brought by others or the foregoing matters may be expanded. We are unable to predict the outcome of these matters or to estimate the possible range of any losses that could be incurred. Adjustments to our overall liability accrual may be required in the future, which could have a material adverse effect on our business, financial condition, results of operations and cash flows.

Other Antitrust Matters

Beginning in November 2013, multiple direct and indirect purchasers of LIDODERM® filed a number of cases against our subsidiary EPI and other pharmaceutical companies generally alleging that they had entered into an anticompetitive agreement to restrain trade through the settlement of patent infringement litigation concerning U.S. Patent No. 5,827,529 (the '529 patent) and other patents. The complaints asserted claims under Sections 1 and 2 of the Sherman Act (15 U.S.C. §§ 1, 2), and/or various state antitrust and consumer protection statutes, as well as common law claims, and generally sought damages, treble damages, disgorgement of profits, restitution, injunctive relief and attorneys' fees. The cases were consolidated and/or coordinated in April 2014 in a federal MDL in the U.S. District Court for the Northern District of California (MDL No. 2521). The MDL court certified classes of direct and indirect purchasers in February 2017. EPI settled with certain opt-out retailer plaintiffs in October 2017. In September 2018, the court approved EPI's settlement with the class plaintiffs and entered judgment dismissing the class cases with prejudice. In connection with the settlements, several indirect purchasers which previously had opted out were permitted to rejoin the class. The class settlement agreements provide for aggregate payments of approximately $100 million. As of July 29, 2019, EPI had paid approximately $90 million of this total, including approximately $60 million in 2018 and $30 million in the first quarter of 2019. The remaining $10 million is included in our accrual for loss contingencies.

Beginning in June 2014, multiple direct and indirect purchasers of OPANA® ER filed cases against our subsidiaries EHSI and EPI and other pharmaceutical companies, including Impax Laboratories, LLC (formerly Impax Laboratories, Inc. and referred to herein as Impax) and Penwest Pharmaceuticals Co., which our subsidiary EPI had acquired. Some cases were filed on behalf of putative classes of direct and indirect purchasers, while others were filed on behalf of individual retailers or health care benefit plans. All cases have been consolidated and/or coordinated for pretrial proceedings in a federal MDL pending in the U.S. District Court for the Northern District of Illinois (MDL No. 2580). Plaintiffs generally allege that an agreement reached by EPI and Impax to settle patent infringement litigation concerning multiple patents pertaining to OPANA® ER and EPI's introduction of reformulated OPANA® ER violated antitrust laws. The complaints assert claims under Sections 1 and 2 of the Sherman Act, various state antitrust and consumer protection statutes and/or state common law. Plaintiffs generally seek damages, treble damages, disgorgement of profits, restitution, injunctive relief and attorneys' fees. In February 2016, the MDL court issued orders (i) denying defendants' motion to dismiss the claims of the direct purchasers, (ii) denying in part and granting in part defendants' motion to dismiss the claims of the indirect purchasers, but giving them permission to file amended complaints and (iii) granting defendants' motion to dismiss the complaints filed by certain retailers, but giving them permission to file amended complaints. In response to the MDL court's orders, the indirect purchasers filed an amended complaint to which the defendants filed a renewed motion to dismiss certain claims, and certain retailers also filed amended complaints. The court has dismissed the indirect purchaser unjust enrichment claims arising under the laws of the states of California, Rhode Island and Illinois. The cases are currently in expert discovery. In March 2019, direct and indirect purchaser plaintiffs filed motions for class certification.

Beginning in February 2009, the FTC and certain private plaintiffs, including distributors and retailers, filed suit against our subsidiary Par Pharmaceutical Companies, Inc. (since June 2016, EGHI) and other pharmaceutical companies alleging violations of antitrust law arising out of their settlement of certain patent litigation concerning the generic version of AndroGel®. Generally, the complaints seek damages, treble damages, equitable relief and attorneys' fees and costs. The cases have been consolidated and/or coordinated for pretrial proceedings in a federal MDL pending in the U.S. District Court for the Northern District of Georgia (MDL No. 2084). In September 2012, the MDL court granted summary judgment to defendants on plaintiffs' claims of sham litigation. In May 2016, plaintiffs representing a putative class of indirect purchasers voluntarily dismissed their claims with prejudice. In February 2017, the FTC voluntarily dismissed its claims against EGHI with prejudice. Claims by certain alleged direct purchasers or their assignees are still pending against EGHI and other defendants. In June 2018, the MDL court granted in part and denied in part various summary judgment and evidentiary motions filed by defendants. In particular, the court rejected two of direct purchasers' three causation theories, rejected damages claims related to AndroGel® 1.62% and granted in part a motion seeking to exclude part of plaintiffs' proposed manufacturing expert's opinions. The motions were denied in all other respects, and the court denied a motion for reconsideration, or in the alternative leave to file an interlocutory appeal, in October 2018. In July 2018, the court denied certain plaintiffs' motion for certification of a direct purchaser class. The court has scheduled a trial for February 2020.

Beginning in May 2018, multiple alleged direct and indirect purchasers filed complaints in the U.S. District Court for the Southern District of New York against PPI, EPI and/or us, as well as others, alleging a conspiracy to delay generic competition and monopolize the market for Exforge® (amlodipine/valsartan) and its generic equivalents. Some cases were filed on behalf of putative classes of direct and indirect purchasers; others are non-class action suits. The plaintiffs generally assert claims under Sections 1 and 2 of the Sherman Act, various state antitrust and consumer protection statutes and state common law and seek damages, treble damages, equitable relief and attorneys' fees and costs. In September 2018, the putative class plaintiffs stipulated to the dismissal without prejudice of their claims against EPI and us, and the retailer plaintiffs later did the same. PPI filed a partial motion to dismiss certain claims in September 2018.

Beginning in February 2018, several alleged indirect purchasers filed proposed class actions against our subsidiary PPI and others alleging a conspiracy to delay generic competition and monopolize the market for Zetia® (ezetimibe) and its generic equivalents. The complaints generally asserted claims under Sections 1 and 2 of the Sherman Act, various state antitrust and consumer protection statutes and state common law and seek injunctive relief, damages, treble damages, attorneys' fees and costs. In June 2018, these and other cases, including proposed direct purchaser class actions in which PPI was not named as a defendant, were consolidated and/or coordinated for pretrial proceedings in a federal MDL pending in the U.S. District Court for the Eastern District of Virginia (MDL No. 2836). In September 2018, the indirect purchaser plaintiffs dismissed their claims against PPI without prejudice. In May 2019, the direct purchaser plaintiffs filed a motion seeking leave of court to file an amended consolidated class complaint adding PPI as a defendant in the direct purchaser actions, which leave was granted in June 2019; certain retailer plaintiffs filed a similar motion, which was granted in July 2019. In July 2019, PPI entered into settlement agreements with both the direct purchaser plaintiffs and the retailer plaintiffs. The direct purchaser settlement is subject to court approval. The settlement agreements involve no admission of liability and no monetary payment.

In August 2019, an alleged direct purchaser filed a proposed class action in the U.S. District Court for the Southern District of New York against PPI and others alleging a conspiracy to delay generic competition and monopolize a market for Seroquel XR® (extended release quetiapine fumarate) and its generic equivalents. The claims against PPI are based on allegations that PPI entered into an exclusive acquisition and license agreement with Handa Pharmaceuticals, LLC (Handa) in 2012 pursuant to which Handa assigned to PPI certain rights under a prior settlement agreement between Handa and AstraZeneca resolving certain patent litigation. The complaint generally asserts claims under Sections 1 and 2 of the Sherman Act and seeks declaratory relief, damages, treble damages, attorneys' fees and costs.

In November 2014, EPI received a CID from Florida's Office of the Attorney General seeking documents and other information concerning EPI's agreement with Actavis settling the LIDODERM® patent litigation, as well as information concerning marketing and sales of LIDODERM®. EPI and/or EHSI later received similar CIDs from Alaska and South Carolina. In May 2019, we and EPI entered into a settlement with the state of California resolving potential antitrust and consumer protection claims concerning EPI's agreement with Actavis settling the LIDODERM® patent litigation, and in July 2019, we and EPI entered into a similar settlement with 18 additional states: Alabama, Arkansas, Florida, Hawaii, Idaho, Illinois, Indiana, Iowa, Maryland, Minnesota, Mississippi, Missouri, Ohio, Oklahoma, Utah, Virginia, Washington and Wisconsin. The settlements involve no admission of liability, and payments provided for in the settlements are not material to the Company. As part of the settlements, we agreed to certain covenants relating to the future settlement of patent infringement litigation through February 2027. These covenants, which are consistent with Endo's current practices in settling patent infringement cases and consistent with the settlement agreement we reached with the Federal Trade Commission in January 2017, include a prohibition on patent settlement agreements that prevent the marketing of authorized generic products or that involve certain payments to generic manufacturers. The covenants are included in stipulated orders subject to approval by the U.S. District Court for the Northern District of California. The court approved the stipulated order relating to the California settlement in June 2019; with respect to the other settlement, a joint motion for entry of the stipulated order remains pending.

To the extent unresolved, we will continue to vigorously defend the foregoing matters and to explore other options as appropriate in our best interests. Similar matters may be brought by others or the foregoing matters may be expanded. We are unable to predict the outcome of these matters or to estimate the possible range of any losses that could be incurred. Adjustments to our overall liability accrual may be required in the future, which could have a material adverse effect on our business, financial condition, results of operations and cash flows.

In February 2015, EGHI and affiliates received a CID from the Office of the Attorney General for the state of Alaska seeking production of certain documents and information regarding EGHI's settlement of AndroGel® patent litigation as well as documents produced in the aforementioned litigation filed by the FTC. Also in February 2015, EHSI received a CID from Alaska's Office of the Attorney General seeking production of certain documents and information concerning agreements with Actavis and Impax settling OPANA® ER patent litigation. We are cooperating with the investigations.

In July 2019, EPI received a CID from the Federal Trade Commission seeking production of certain documents and information regarding oxymorphone ER and EPI's settlement of a contract dispute with Impax Laboratories in August 2017. We are cooperating with the investigation.

Similar investigations may be brought by others or the foregoing matters may be expanded or result in litigation. We are unable to predict the outcome of these matters or to estimate the possible range of any additional losses that could be incurred. Adjustments to our overall liability accrual may be required in the future, which could have a material adverse effect on our business, financial condition, results of operations and cash flows.

Securities Litigation

In May 2016, a putative class action entitled *Craig Friedman v. Endo International plc, Rajiv Kanishka Liyanaarchchie de Silva and Suketu P. Upadhyay* was filed in the U.S. District Court for the Southern District of New York by an individual shareholder on behalf of himself and all similarly situated shareholders. In August 2016, the court appointed Steamfitters' Industry Pension Fund and Steamfitters' Industry Security Benefit Fund as lead plaintiffs in the action. In October 2016, plaintiffs filed a second amended complaint that, among other things, added Paul Campanelli as a defendant, and we filed a motion to dismiss. In response, and without resolving the motion, the court permitted lead plaintiffs to file a third amended complaint. The amended complaint alleged violations of Sections 10(b) and 20(a) of the Exchange Act based on the Company's revision of its 2016 earnings guidance and certain disclosures about its generics business, the integration of Par Pharmaceutical Holdings, Inc. and its subsidiaries, certain other alleged business issues and the receipt of a CID from the U.S. Attorney's Office for the Southern District of New York regarding contracts with pharmacy benefit managers concerning FROVA®. Lead plaintiffs sought class certification, damages in an unspecified amount and attorneys' fees and costs. We filed a motion to dismiss the third amended complaint in December 2016. In January 2018, the court granted our motion and dismissed the case with prejudice. In February 2018, lead plaintiffs filed a motion for relief from the judgment and leave to file a fourth amended complaint; the court denied this motion in April 2018. Lead plaintiffs appealed to the U.S. Court of Appeals for the Second Circuit. In April 2019, the Court of Appeals affirmed the District Court's decision in full.

In February 2017, a putative class action entitled *Public Employees' Retirement System of Mississippi v. Endo International plc* was filed in the Court of Common Pleas of Chester County, Pennsylvania by an institutional purchaser of shares in our June 2, 2015 public offering, on behalf of itself and all similarly situated purchasers. The complaint alleged violations of Sections 11, 12(a)(2) and 15 of the Securities Act of 1933 against Endo, certain of its current and former directors and officers, and the underwriters who participated in the offering, based on certain disclosures about Endo's generics business. In March 2017, defendants removed the case to the U.S. District Court for the Eastern District of Pennsylvania. In August 2017, the court remanded the case back to the Chester County Court of Common Pleas. In October 2017, plaintiff filed an amended complaint. In December 2017, defendants filed preliminary objections to the amended complaint. The court denied those preliminary objections in April 2018. Plaintiff filed its motion for class certification in July 2018. In June 2019, the parties entered into a settlement, subject to court approval, which provides for a $50 million payment to the investor class in exchange for a release of their claims. The court preliminarily approved the settlement in July 2019 and scheduled a final approval hearing for October 2019. As a result of the settlement, during the first quarter of 2019, the Company recorded an increase of approximately $50 million to its accrual for loss contingencies. As the Company's insurers have agreed to fund the foregoing settlement, the Company also recorded a corresponding insurance receivable of approximately $50 million during the first quarter of 2019, which is included in Prepaid expenses and other current assets in the Condensed Consolidated Balance Sheets.

In April 2017, a putative class action entitled *Phaedra A. Makris v. Endo International plc, Rajiv Kanishka Liyanaarchchie de Silva and Suketu P. Upadhyay* was filed in the Superior Court of Justice in Ontario, Canada by an individual shareholder on behalf of herself and similarly-situated Canadian-based investors who purchased Endo's securities between January 11 and May 5, 2016. The original statement of claim generally sought class certification, declaratory relief, damages, interest and costs based on alleged violations of the Ontario Securities Act. The original statement of claim alleged negligent misrepresentations concerning the Company's revenues, profit margins and earnings per share; its receipt of a subpoena from the state of Connecticut regarding doxycycline hyclate, amitriptyline hydrochloride, doxazosin mesylate, methotrexate sodium and oxybutynin chloride; and the erosion of the Company's U.S. generic pharmaceuticals business. In January 2019, plaintiff amended her statement of claim to add a claim on behalf of herself and similarly-situated Canadian investors who purchased Endo's securities between January 11, 2016 and June 8, 2017. This new claim is based on the Company's decision to remove reformulated OPANA® ER from the market.

In August 2017, a putative class action entitled *Bier v. Endo International plc, et al.* was filed in the U.S. District Court for the Eastern District of Pennsylvania by an individual shareholder on behalf of himself and all similarly situated shareholders. The original complaint alleged violations of Section 10(b) and 20(a) of the Exchange Act against Endo and four current and former directors and officers, based on the Company's decision to remove reformulated OPANA® ER from the market. In December 2017, the court appointed SEB Investment Management AB lead plaintiff in the action. In February 2018, the lead plaintiff filed an amended complaint, which added claims alleging violations of Sections 11 and 15 of the Securities Act in connection with the June 2015 offering. The amended complaint named the Company, EHSI and 20 current and former directors, officers and employees of Endo as defendants. In April 2018, the defendants moved to dismiss the amended complaint. In December 2018, the court dismissed the plaintiff's claims against four individual defendants, but otherwise denied the motion to dismiss. In May 2019, the lead plaintiff moved for class certification; the motion remains pending. In July 2019, the parties informed the court that they had reached a settlement in principle. The settlement in principle would provide the investor class $82.5 million in exchange for a release of their claims. As a result of the settlement in principle, during the second quarter of 2019, the Company recorded an increase of approximately $82.5 million to its accrual for loss contingencies. As the Company's insurers have agreed to fund the foregoing settlement, the Company also recorded a corresponding insurance receivable of approximately $82.5 million during the second quarter of 2019, which is included in Prepaid expenses and other current assets in the Condensed Consolidated Balance Sheets.

In November 2017, a putative class action entitled *Pelletier v. Endo International plc, Rajiv Kanishka Liyanaarchchie De Silva, Suketu P. Upadhyay and Paul V. Campanelli* was filed in the U.S. District Court for the Eastern District of Pennsylvania by an individual shareholder on behalf of himself and all similarly situated shareholders. The lawsuit alleges violations of Section 10(b) and 20(a) of the Exchange Act relating to the pricing of various generic pharmaceutical products. In June 2018, the court appointed Park Employees' Annuity and Benefit Fund of Chicago lead plaintiff in the action. In August 2018, the lead plaintiff filed an amended complaint. In September 2018, the defendants moved to dismiss the amended complaint. That motion remains pending.

To the extent unresolved, we will continue to vigorously defend the foregoing matters and to explore other options as appropriate in our best interests. Similar matters may be brought by others or the foregoing matters may be expanded. We are unable to predict the outcome of these matters or to estimate the possible range of any losses that could be incurred. Adjustments to our overall liability accrual may be required in the future, which could have a material adverse effect on our business, financial condition, results of operations and cash flows.

VASOSTRICT® Related Matters

In July 2016, Fresenius Kabi USA, LLC (Fresenius) filed a complaint against PPCI and its affiliate Par Sterile Products, LLC (PSP) in the U.S. District Court for the District of New Jersey alleging that PPCI and its affiliate engaged in an anticompetitive scheme to exclude competition for PPCI's VASOSTRICT® (vasopressin) product. The complaint alleges violations of Sections 1 and 2 of the Sherman Antitrust Act, as well as state antitrust and common law, based on assertions that PPCI and its affiliate entered into exclusive supply agreements with one or more active pharmaceutical ingredient (API) manufacturers and that, as a result, Fresenius has been unable to obtain vasopressin API in order to file an Abbreviated New Drug Application (ANDA) to obtain U.S. Food and Drug Administration (FDA) approval for its own vasopressin product. Fresenius seeks actual, treble and punitive damages, attorneys' fees and costs and injunctive relief. In September 2016, PPCI and its affiliate filed a motion to dismiss, which the district court denied in February 2017. The parties filed cross-motions for summary judgment in July 2019.

In August 2017, our subsidiaries PPI and PSP filed a complaint for actual, exemplary and punitive damages, injunctive relief and other relief against QuVa Pharma, Inc. (QuVa), Stuart Hinchen, Peter Jenkins and Mike Rutkowski in the U.S. District Court for the District of New Jersey. The complaint alleges misappropriation in violation of the federal Defend Trade Secrets Act, New Jersey's Trade Secrets Act and New Jersey common law, as well as unfair competition, breach of contract, breach of fiduciary duty, breach of the duty of loyalty, tortious interference with contractual relations and breach of the duty of confidence in connection with VASOSTRICT®, a vasopressin-based cardiopulmonary drug. In November 2017, we filed a motion for preliminary injunction seeking various forms of relief. In January 2018, we filed a first amended complaint adding four former employees and one former consultant of PSP as defendants and numerous causes of action against some or all of those individuals, including misappropriation under the federal Defend Trade Secrets Act, New Jersey's Trade Secrets Act and New Jersey common law, as well as breach of contract, breach of the duty of loyalty and breach of the duty of confidence. In March 2018, the court granted in part our motion for preliminary injunction and enjoined QuVa from marketing and releasing its planned vasopressin product through the conclusion of trial. We subsequently deposited a bond to the court's interest-bearing account to secure the preliminary injunction. Defendants filed a motion asking the court to reconsider the bond amount, which the court denied. Also in March 2018, QuVa and seven of the individual defendants filed a motion to dismiss the New Jersey common law claims, four of the individual defendants filed a motion to dismiss for lack of personal jurisdiction and one of the individuals filed a motion to dismiss the breach of contract claim. In April 2018, another individual defendant filed a motion to dismiss asserting numerous arguments, including lack of personal jurisdiction, improper venue and choice of law. Discovery began in May 2018. Also in May 2018, defendants filed a notice of appeal to the Third Circuit Court of Appeal indicating intent to appeal the court's preliminary injunction. The parties completed appellate briefing in January 2019. Also in January 2019, the court denied all four of defendants' pending motions to dismiss. In February 2019, the defendants filed their answers and affirmative defenses, and certain defendants also filed counterclaims for defamation, tortious interference with contract, tortious interference with prospective business relations and witness interference. The counterclaims seek actual, exemplary and punitive damages and other relief. In March 2019, we filed a motion to dismiss all of the defendants' counterclaims. This motion is still pending. In April 2019, the Third Circuit Court of Appeals affirmed the court's preliminary injunction but remanded for additional fact-finding concerning the duration of the preliminary injunction and, if needed, consideration of the additional trade secrets raised in our motion for preliminary injunction but not addressed by the preliminary injunction order. The parties completed remand briefing in June 2019 and, following oral argument in July 2019, the court took the issue under submission.

In October 2017, Endo Par Innovation Company, LLC (EPIC) and PSP filed a complaint in the U.S. District Court for the District of Columbia challenging the legality of the FDA's *Interim Policy on Compounding Using Bulk Drug Substances Under Section 503B of the Federal Food, Drug, and Cosmetic Act* (January 2017) with respect to the listing of vasopressin in Category 1 of the *Interim Policy*. The complaint contends that the *Interim Policy* is unlawful because it is inconsistent with the Federal Food, Drug, and Cosmetic Act, including, but not limited to, Section 503B of that Act. The complaint sought (i) a declaration that FDA's *Interim Policy* and its listing of vasopressin in Category 1 of the *Interim Policy* are unlawful and (ii) an order enjoining and vacating the *Interim Policy* and the FDA's listing of vasopressin in Category 1 of the *Interim Policy*. In January 2018, EPIC and PSP agreed to a temporary 60-day stay of the litigation in light of the FDA's announcement that forthcoming guidance would address the concerns set forth in the Company's complaint. In March 2018, the FDA released new draft guidance for industry entitled "Evaluation of Bulk Drug Substances Nominated for Use in Compounding Under Section 503B of the Federal Food, Drug, and Cosmetic Act." Shortly thereafter, the parties agreed to extend the temporary stay for an additional 180 days. In August 2018, before the 180-day stay period expired, Athenex Pharma Solutions, LLC and Athenex Pharmaceutical Division, LLC announced they had commenced bulk compounding of vasopressin, and moved to intervene in EPIC and PSP's case against the FDA. Later that month, EPIC and PSP invoked their ability to terminate the stay and filed a Motion for Preliminary Injunction. Before responding to the Motion for Preliminary Injunction, the FDA issued a notice containing a proposed finding that there is no clinical need to bulk compound vasopressin under Section 503B in August 2018. In September 2018, the FDA advised EPIC and PSP that it would agree to use its best efforts to finalize the vasopressin clinical need rulemaking by December 31, 2018, if the case were again stayed. EPIC and PSP agreed to the requested stay. In December 2018, the appropriations act that had been funding the DOJ and components of the FDA expired, resulting in a lapse of appropriations; therefore, the FDA moved the court for a further stay of the case until appropriations were restored. The court granted the motion in January 2019, ordering the FDA to file a notification with the court within three business days of DOJ operations resuming. After government appropriations were restored, the FDA advised that it would use its best efforts to finalize the vasopressin clinical need determination by March 15, 2019. The FDA finalized the vasopressin clinical need determination in March 2019, finding that because of VASOSTRICT®'s availability, there is no clinical need for outsourcing facilities to compound drugs using bulk vasopressin. That same day, Athenex, Inc., Athenex Pharma Solutions, LLC, and Athenex Pharmaceutical Division, LLC filed a complaint in the U.S. District Court for the District of Columbia, challenging the FDA's clinical need determination for vasopressin. EPIC and PSP intervened as defendants in the action. The parties and the court agreed to an expedited summary judgment briefing, and a hearing on cross-motions for summary judgment was held in April 2019. In August 2019, the court granted defendants' motion for summary judgment and denied plaintiffs' motion for summary judgment. Plaintiffs subsequently filed a motion for a stay or injunction of the court's order pending a forthcoming appeal to the United States Court of Appeals for the District of Columbia Circuit. EPIC and PSP's suit against the FDA remains inactive at this time.

In August 2018, Athenex filed a declaratory judgment action in the U.S. District Court for the Western District of New York, a case styled *Athenex v. Par*, alleging non-infringement and/or invalidity of the patents the Company has listed in the Orange Book in view of VASOSTRICT®. The Company moved to dismiss Athenex's case on multiple grounds in October 2018, which motion was opposed by Athenex in December 2018. The Company responded to this opposition in December 2018. In July 2019, the court granted our motion and dismissed Athenex's declaratory judgment action. The time for Athenex to appeal the dismissal has not yet expired.

In April 2018, PSP and PPI received a notice letter from Eagle Pharmaceuticals, Inc. (Eagle) advising of the filing by such company of an ANDA for a generic version of VASOSTRICT® (vasopressin IV solution (infusion)) 20 units/ml. In May 2018, PSP and PPI received a second notice letter from Eagle advising of the same filing, but adding an additional patent. The Paragraph IV notices refer to U.S. Patent Nos. 9,375,478; 9,687,526; 9,744,209; 9,744,239; 9,750,785; and 9,937,223, which variously cover either vasopressin-containing pharmaceutical compositions or methods of using a vasopressin-containing dosage form to increase blood pressure in humans. In May 2018, PPI, PSP and EPIC filed a lawsuit against Eagle in the U.S. District Court for the District of Delaware within the 45-day deadline to invoke a 30-month stay of FDA approval pursuant to the Hatch-Waxman legislative scheme. In August 2018, Eagle filed an answer and a counterclaim for non-infringement and invalidity of asserted patents. A claim construction hearing was held in May 2019 and a bench trial is scheduled for May 2020.

In September 2018, PSP and PPI received a notice letter from Sandoz Inc. (Sandoz) advising of the filing by such company of an ANDA for a generic version of VASOSTRICT® (vasopressin IV solution (infusion)) 200 units/10 ml. In October 2018, PPI, PSP and EPIC filed a lawsuit against Sandoz in the U.S. District Court for the District of New Jersey within the 45-day deadline to invoke a 30-month stay of FDA approval pursuant to the Hatch-Waxman legislative scheme. In October 2018, PSP and PPI received an additional notice letter from Sandoz advising of the filing by such company of an ANDA for a generic version of the 20 units/1 ml presentation for VASOSTRICT®. In November 2018, the complaint was amended to add a claim for the additional notice letter, within the 45-day deadline to invoke a 30-month stay of FDA approval pursuant to the Hatch-Waxman legislative scheme.

In November 2018, PSP and PPI received a notice letter from Amphastar Pharmaceuticals, Inc. (Amphastar) advising of the filing by such company of an ANDA for a generic version of VASOSTRICT® (vasopressin IV solution (infusion)) 20 units/1 ml. In December 2018, PPI, PSP and EPIC filed a lawsuit against Amphastar in the U.S. District Court for the District of Delaware within the 45-day deadline to invoke a 30-month stay of FDA approval pursuant to the Hatch-Waxman legislative scheme.

In March 2019, PSP and PPI received a notice letter from Amneal Pharmaceuticals LLC (Amneal) advising of the filing by such company of an ANDA for a generic version of VASOSTRICT® (vasopressin IV solution (infusion)) 20 units/1 ml and 200 units/10 ml. In April 2019, PPI, PSP and EPIC filed a lawsuit against Amneal in the U.S. District Court for the District of Delaware within the 45-day deadline to invoke a 30-month stay of FDA approval pursuant to the Hatch-Waxman legislative scheme.

In June 2019, PSP and PPI received a notice letter from American Regent advising of the filing by such company of an ANDA for a generic version of VASOSTRICT® (vasopressin IV solution (infusion)) 20 units/1 ml. The 45-day deadline to invoke a 30-month stay of FDA approval pursuant to the Hatch-Waxman legislative scheme has not yet expired.

The Company's accrual for loss contingencies includes, among other things, an estimated accrual for certain VASOSTRICT®-related matters. We will continue to vigorously defend or prosecute the foregoing matters as appropriate, to protect our intellectual property rights, to pursue all available legal and regulatory avenues and to explore other options as appropriate in our best interests. Similar matters may be brought by others or the foregoing matters may be expanded. We are unable to predict the outcome of these matters or to estimate the possible range of any additional losses that could be incurred. Adjustments to our overall liability accrual may be required in the future, which could have a material adverse effect on our business, financial condition, results of operations and cash flows.

Paragraph IV Certifications on OPANA® ER

In August 2014 and October 2014, the U.S. Patent Office issued U.S. Patent Nos. 8,808,737 (the '737 patent) and 8,871,779 (the '779 patent) respectively, which cover a method of using OPANA® ER and a highly pure version of the API of OPANA® ER. In November 2014, EPI filed lawsuits against Teva, ThoRx, Actavis, Impax, Ranbaxy, Roxane, Amneal and Sandoz Inc. based on their ANDAs filed against both the INTAC® technology and non-INTAC® technology versions of OPANA® ER. Those lawsuits were filed in the U.S. District Court for the District of Delaware alleging infringement of these new patents, which expire in 2027 and 2029, respectively. On November 17, 2015, the District Court held the '737 patent invalid for claiming unpatentable subject matter. That patent was dismissed from all suits and the suits administratively closed as to that patent, subject to appeal at the end of the case on the '779 patent. In July 2016, a three-day trial was held in the U.S. District Court for the District of Delaware against Teva and Amneal for infringement of the '779 patent. In October 2016, the District Court issued an opinion holding that the defendants infringed the claims of U.S. Patent No. 8,871,779. The opinion also held that the defendants had failed to show that the '779 patent was invalid. The District Court issued an order enjoining the defendants from launching their generic products until the expiration of the '779 patent in November 2029. A trial for infringement of the '779 patent by Actavis was held in February 2017 in the same court (U.S. District Court for the District of Delaware) in front of the same judge. In August 2017, the District Court issued an opinion holding that Actavis infringed the claims of the '779 patent and that Actavis had failed to show that the '779 patent was invalid. Teva, Amneal and Actavis have appealed these holdings. We have appealed the holding that the '737 patent is invalid. On our appeal, the court ruled in our favor in March 2019, holding that the '737 patent is not invalid for claiming a natural law. In May 2019, the appellate court upheld the lower court's ruling that the defendants infringed the claims of the '779 patent. As a result, the lower court issued injunctions in May, June and July 2019 against the defendants from launching their generic product prior to the expiration of the '779 patent in 2029. Our infringement suits against the defendants for the '737 patent were dismissed without prejudice to us, stipulating that if the injunctions based on the '779 patent are withdrawn for any reason, the '737 patent could be reasserted. This matter is now closed.

Other Proceedings and Investigations

Proceedings similar to those described above may also be brought in the future. Additionally, we are involved in, or have been involved in, arbitrations or various other proceedings that arise from the normal course of our business. We cannot predict the timing or outcome of these other proceedings. Currently, neither we nor our subsidiaries are involved in any other proceedings that we expect to have a material effect on our business, financial condition, results of operations and cash flows.

NOTE 14. OTHER COMPREHENSIVE INCOME (LOSS)

There were no tax effects allocated to any component of Other comprehensive income (loss) for the three and six months ended June 30, 2019 and 2018. Substantially all of the Company's Accumulated other comprehensive loss balances at June 30, 2019 and December 31, 2018 consist of Foreign currency translation loss.

NOTE 15. SHAREHOLDERS' DEFICIT

The following table presents a reconciliation of the beginning and ending balances in Total shareholders' deficit for the three and six months ended June 30, 2019 (in thousands):

	Euro Deferred Shares	Ordinary Shares	Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Loss	Total Shareholders' Deficit
BALANCE, DECEMBER 31, 2018, PRIOR TO THE ADOPTION OF ASC 842 (1)	$ 46	$ 22	$ 8,855,810	$ (9,124,932)	$ (229,229)	$ (498,283)
Effect of adopting ASC 842 (1)	—	—	—	(4,646)	—	(4,646)
BALANCE, JANUARY 1, 2019	$ 46	$ 22	$ 8,855,810	$ (9,129,578)	$ (229,229)	$ (502,929)
Net loss	—	—	—	(18,573)	—	(18,573)
Other comprehensive income	—	—	—	—	4,730	4,730
Compensation related to share-based awards	—	—	24,733	—	—	24,733
Exercise of options	—	—	4	—	—	4
Tax withholding for restricted shares	—	—	(2,414)	—	—	(2,414)
Other	(1)	—	—	—	—	(1)
BALANCE, MARCH 31, 2019	$ 45	$ 22	$ 8,878,133	$ (9,148,151)	$ (224,499)	$ (494,450)
Net loss	—	—	—	(106,005)	—	(106,005)
Other comprehensive income	—	—	—	—	4,395	4,395
Compensation related to share-based awards	—	—	12,600	—	—	12,600
Tax withholding for restricted shares	—	—	(7,013)	—	—	(7,013)
Other	—	1	—	—	—	1
BALANCE, JUNE 30, 2019	$ 45	$ 23	$ 8,883,720	$ (9,254,156)	$ (220,104)	$ (590,472)

(1) Refer to Note 2. Summary of Significant Accounting Policies for further description of ASC 842.

The following table presents a reconciliation of the beginning and ending balances in Total shareholders' equity (deficit) for the three and six months ended June 30, 2018 (in thousands):

	Euro Deferred Shares	Ordinary Shares	Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Loss	Total Shareholders' Equity (Deficit)
BALANCE, DECEMBER 31, 2017, PRIOR TO THE ADOPTION OF ASC 606 (1)	$ 48	$ 22	$ 8,791,170	$ (8,096,539)	$ (209,821)	$ 484,880
Effect of adopting ASC 606 (1)	—	—	—	3,076	—	3,076
BALANCE, JANUARY 1, 2018	$ 48	$ 22	$ 8,791,170	$ (8,093,463)	$ (209,821)	$ 487,956
Net loss	—	—	—	(505,489)	—	(505,489)
Other comprehensive loss	—	—	—	—	(5,797)	(5,797)
Compensation related to share-based awards	—	—	17,890	—	—	17,890
Tax withholding for restricted shares	—	—	(1,642)	—	—	(1,642)
Other	1	—	(12)	—	—	(11)
BALANCE, MARCH 31, 2018	$ 49	$ 22	$ 8,807,406	$ (8,598,952)	$ (215,618)	$ (7,093)
Net loss	—	—	—	(60,867)	—	(60,867)
Other comprehensive loss	—	—	—	—	(5,971)	(5,971)
Compensation related to share-based awards	—	—	12,096	—	—	12,096
Tax withholding for restricted shares	—	—	(234)	—	—	(234)
Other	(2)	—	(6)	—	—	(8)
BALANCE, JUNE 30, 2018	$ 47	$ 22	$ 8,819,262	$ (8,659,819)	$ (221,589)	$ (62,077)

(1) The Company adopted ASC 606 on January 1, 2018 using the modified retrospective method for all revenue-generating contracts, including modifications thereto, that were not completed contracts at the date of adoption. As a result of adopting ASC 606, the Company recorded a net decrease of $3.1 million to its accumulated deficit at January 1, 2018, representing the cumulative impact of adopting ASC 606.

Share-Based Compensation

The Company recognized share-based compensation expense of $12.6 million and $12.1 million during the three months ended June 30, 2019 and 2018, respectively, and $37.3 million and $30.0 million during the six months ended June 30, 2019 and 2018, respectively. As of June 30, 2019, the total remaining unrecognized compensation cost related to non-vested share-based compensation awards amounted to $75.5 million.

There are 0.2 million performance share units outstanding as of June 30, 2019, representing target amounts, for which a grant date has not been established. No fair value has been ascribed to these awards as no grant date has been established. Accordingly, they are not reflected in the remaining unrecognized compensation cost above or the weighted average remaining requisite service period below.

As of June 30, 2019, the weighted average remaining requisite service period for non-vested stock options was 1.3 years and for non-vested restricted stock units was 2.0 years.

NOTE 16. OTHER (INCOME) EXPENSE, NET

The components of Other (income) expense, net for the three and six months ended June 30, 2019 and 2018 are as follows (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Net gain on sale of business and other assets	$ (2,462)	$ (24,577)	$ (1,168)	$ (26,993)
Foreign currency loss (gain), net	2,041	(3)	3,757	(2,088)
Net loss (gain) from our investments in the equity of other companies	269	(305)	2,355	2,321
Other miscellaneous, net	(445)	(3,946)	(739)	(4,949)
Other (income) expense, net	$ (597)	$ (28,831)	$ 4,205	$ (31,709)

Net gain on sale of business and other assets primarily relates to the sales of various ANDAs. Amounts of Foreign currency loss (gain), net result from the remeasurement of the Company's foreign currency denominated assets and liabilities. Net loss (gain) from our investments in the equity of other companies includes the income statement impacts of our investments in the equity of other companies, which primarily relate to investments accounted for under the equity method.

NOTE 17. INCOME TAXES

The following table displays our Loss from continuing operations before income tax, Income tax expense and Effective tax rate for the three and six months ended June 30, 2019 and 2018 (dollars in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Loss from continuing operations before income tax	$ (94,584)	$ (46,244)	$ (96,293)	$ (528,491)
Income tax expense	$ 3,468	$ 6,235	$ 14,371	$ 21,726
Effective tax rate	*(3.7)%*	*(13.5)%*	*(14.9)%*	*(4.1)%*

The income tax expense for the three months ended June 30, 2019 primarily relates to accrued interest on uncertain tax positions. As of June 30, 2019, we had valuation allowances established against our deferred tax assets in most jurisdictions in which we operate, with the exception of Canada and India. The income tax expense for the comparable 2018 period primarily relates to the geographic mix of pre-tax earnings.

The income tax expense for the six months ended June 30, 2019 primarily relates to a taxable gain arising from the extinguishment of debt in the March 2019 Refinancing Transactions and accrued interest on uncertain tax positions. The income tax expense for the comparable 2018 period primarily relates to the geographic mix of pre-tax earnings and discrete tax expense incurred in connection with an intercompany asset restructuring.

NOTE 18. NET LOSS PER SHARE

The following is a reconciliation of the numerator and denominator of basic and diluted net loss per share for the three and six months ended June 30, 2019 and 2018 (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Numerator:				
Loss from continuing operations	$ (98,052)	$ (52,479)	$ (110,664)	$ (550,217)
Loss from discontinued operations, net of tax	(7,953)	(8,388)	(13,914)	(16,139)
Net loss	$ (106,005)	$ (60,867)	$ (124,578)	$ (566,356)
Denominator:				
For basic per share data—weighted average shares	226,221	223,834	225,408	223,677
Dilutive effect of ordinary share equivalents	—	—	—	—
For diluted per share data—weighted average shares	226,221	223,834	225,408	223,677

Basic net loss per share amounts are computed based on the weighted average number of ordinary shares outstanding during the period. Diluted net loss per share amounts are computed based on the weighted average number of ordinary shares outstanding and, if there is net income from continuing operations during the period, the dilutive effect of ordinary share equivalents outstanding during the period.

The dilutive effect of ordinary share equivalents is measured using the treasury stock method. Stock options and awards that have been issued but for which a grant date has not yet been established, such as the performance share units discussed in Note 15. Shareholders' Deficit, are not considered in the calculation of basic or diluted weighted average shares.

All potentially dilutive items were excluded from the diluted share calculation for the three and six months ended June 30, 2019 and 2018 because their effect would have been anti-dilutive, as the Company was in a loss position.

Item 2. ***Management's Discussion and Analysis of Financial Condition and Results of Operations***

The following Management's Discussion and Analysis of Financial Condition and Results of Operations describes the principal factors affecting the results of operations, liquidity and capital resources and critical accounting estimates of Endo International plc. This discussion should be read in conjunction with the accompanying quarterly unaudited Condensed Consolidated Financial Statements and related notes thereto and the Annual Report. The Annual Report includes additional information about our significant accounting policies, practices and the transactions that underlie our financial results, as well as a detailed discussion of the most significant risks and uncertainties associated with our financial and operating results. Except for the historical information contained in this report, including the following discussion, this report contains forward-looking statements that involve risks and uncertainties. See "Forward-Looking Statements" beginning on page i of this report.

Unless otherwise indicated or required by the context, references throughout to "Endo," the "Company," "we," "our" or "us" refer to financial information and transactions of Endo International plc and its subsidiaries.

RESULTS OF OPERATIONS

Our quarterly results have fluctuated in the past, and may continue to fluctuate. These fluctuations are primarily due to (1) the timing of new product launches, (2) purchasing patterns of our customers, (3) market acceptance of our products, (4) the impact of competitive products and products we recently acquired, (5) pricing of our products, (6) the timing of mergers, acquisitions, divestitures and other related activity and (7) other actions taken by the Company which may impact the availability of our products. These fluctuations are also attributable to charges incurred for compensation related to share-based payments, amortization of intangible assets, asset impairment charges, litigation-related charges, restructuring charges and certain upfront, milestone and other payments made or accrued pursuant to acquisition or licensing agreements. Additionally, the Company adopted ASC 842 on January 1, 2019 for leases that existed on that date. The Company has elected to apply the provisions of ASC 842 retrospectively at January 1, 2019 through a cumulative-effect adjustment. Prior period results continue to be presented under ASC 840 based on the accounting standards originally in effect for such periods. Refer to Note 2. Summary of Significant Accounting Policies of the Condensed Consolidated Financial Statements included in Part I, Item 1 for additional information.

Consolidated Results Review

The following table displays our revenue, gross margin, gross margin percentage and other pre-tax expense or income for the three and six months ended June 30, 2019 and 2018 (dollars in thousands):

	Three Months Ended June 30,		% Change	Six Months Ended June 30,		% Change
	2019	2018	2019 vs. 2018	2019	2018	2019 vs. 2018
Total revenues, net	$ 699,727	$ 714,696	(2)%	$ 1,420,138	$ 1,415,223	— %
Cost of revenues	388,208	381,905	2 %	780,117	785,503	(1)%
Gross margin	$ 311,519	$ 332,791	(6)%	$ 640,021	$ 629,720	2 %
Gross margin percentage	*44.5%*	*46.6%*		*45.1%*	*44.5%*	
Selling, general and administrative	$ 152,297	$ 148,157	3 %	$ 303,420	$ 314,824	(4)%
Research and development	26,348	82,102	(68)%	59,834	120,748	(50)%
Litigation-related and other contingencies, net	10,315	19,620	(47)%	10,321	17,120	(40)%
Asset impairment charges	88,438	22,767	NM	253,886	471,183	(46)%
Acquisition-related and integration items	(5,507)	5,161	NM	(43,008)	11,996	NM
Interest expense, net	134,809	130,059	4 %	267,484	254,049	5 %
Gain on extinguishment of debt	—	—	NM	(119,828)	—	NM
Other (income) expense, net	(597)	(28,831)	(98)%	4,205	(31,709)	NM
Loss from continuing operations before income tax	$ (94,584)	$ (46,244)	NM	$ (96,293)	$ (528,491)	(82)%

NM indicates that the percentage change is not meaningful or is greater than 100%.

Total revenues, net. Revenues from our Sterile Injectables segment, including VASOSTRICT®, ADRENALIN® and ertapenem for injection, our Branded Pharmaceuticals segment's Specialty Products portfolio, led by XIAFLEX®, and new product launches such as colchicine tablets, the authorized generic of Colcrys®, increased during both the three and six months ended June 30, 2019. Revenues from our Branded Pharmaceuticals segment's Established Products portfolio, our Generic Pharmaceuticals segment and our International Pharmaceuticals segment decreased during both the three and six months ended June 30, 2019 as a result of continued competitive pressures, generic competition and certain other factors. Our revenues are further disaggregated and described below under the heading "Business Segment Results Review."

Cost of revenues and gross margin percentage. During the three and six months ended June 30, 2019 and 2018, we incurred certain charges that impact the comparability of total Cost of revenues, including those related to amortization expense and separation benefits and other cost reduction initiatives, including restructurings. The following table summarizes such amounts (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Amortization of intangible assets (1)	$ 140,418	$ 153,215	$ 286,017	$ 310,387
Separation benefits and other cost reduction initiatives (2)	$ —	$ 26,815	$ —	$ 56,421

(1) Amortization expense fluctuates based on changes in the total amount of amortizable intangible assets and the rate of amortization in effect for each intangible asset, both of which can vary based on factors such as the amount and timing of acquisitions, dispositions, asset impairment charges, transfers between indefinite- and finite-lived intangibles assets, changes in foreign currency rates and changes in the composition of our intangible assets impacting the weighted average useful lives and amortization methodologies being utilized. The decreases during both the three and six months ended June 30, 2019 were primarily driven by asset impairment charges and decreases in the rate of amortization expense for certain assets, partially offset by the impact of certain in-process research and development assets put into service.

(2) Amounts in 2018 primarily relate to certain accelerated depreciation charges, employee separation costs, charges to increase excess inventory reserves related to restructurings and other cost reduction and restructuring charges. See Note 4. Restructuring of the Condensed Consolidated Financial Statements included in Part I, Item 1 for discussion of our material restructuring initiatives.

Reductions to these charges during the three and six months ended June 30, 2019 resulted in decreases to Cost of revenues and increases in gross margin percentage. Our Cost of revenues and gross margin percentage were also impacted by changes in the amounts and mix of our revenues during the three and six months ended June 30, 2019. These changes in mix included both the favorable impacts of overall shifts from lower margin Generic Pharmaceuticals and Established Products to higher margin Sterile Injectables and Specialty Products and the unfavorable impacts of increases in sales of certain lower margin authorized generic products launched in the third quarter of 2018.

The increase in Cost of revenues and the decrease in gross margin percentage during the three months ended June 30, 2019 related primarily to product mix, partially offset by decreases to amortization expense and restructuring charges. The increase in Cost of revenues was also partially offset by the overall decrease in revenues described above.

The decrease in Cost of revenues and the increase in gross margin percentage during the six months ended June 30, 2019 related primarily to decreases to amortization expense and restructuring charges, partially offset by product mix.

Selling, general and administrative expenses. The increase for the three months ended June 30, 2019 was primarily driven by increases in costs related to our continued investment and promotional efforts behind XIAFLEX®.

The decrease for the six months ended June 30, 2019 was primarily driven by a lower branded prescription drug fee and the impact of certain restructuring and other cost reduction initiatives. Partially offsetting these decreases were increases in costs related to our continued investment and promotional efforts behind XIAFLEX®. Our material restructuring initiatives are described more fully in Note 4. Restructuring of the Condensed Consolidated Financial Statements included in Part I, Item 1.

Research and development expenses. We are currently progressing the cellulite treatment development program for collagenase clostridium histolyticum (CCH). In November 2018, we reported positive results from two Phase 3 clinical trials of CCH for the treatment of cellulite in the buttocks. Trial subjects receiving CCH showed highly statistically significant levels of improvement in the appearance of cellulite with treatment, as measured by the trials' primary endpoint. In addition, the RELEASE-1 trial passed 8 out of 8 key secondary endpoints and the RELEASE-2 trial passed 7 out of 8 key secondary endpoints. Finally, CCH was well-tolerated in the actively-treated subjects with most adverse events being mild to moderate in severity and primarily limited to the local injection area. These trials had been initiated during the first quarter of 2018.

Our remaining pipeline consists mainly of a variety of pharmaceutical products in our Sterile Injectables and Generic Pharmaceuticals segments. Our primary approach to developing products in these segments is to target high-barrier-to-entry product opportunities, including first-to-file or first-to-market opportunities that are difficult to formulate or manufacture or face complex legal and regulatory challenges. We expect such product opportunities to result in products that are either the exclusive generic or have two or fewer generic competitors when launched, which we believe tends to lead to more sustainable market share and profitability for our product portfolio. In our Sterile Injectables business, we also focus on developing branded injectable products with inherent scientific, regulatory, legal and technical complexities and developing other dosage forms and technologies.

As of June 30, 2019, these two segments are actively pursuing approximately 120 product candidates, which included approximately 65 ANDAs pending with the FDA. Of the 65 ANDAs, approximately half represent first-to-file opportunities or first-to-market opportunities. These numbers do not include five sterile injectable product candidates relating to a second-quarter 2018 development, license and commercialization agreement with Nevakar, Inc. These numbers reflect recent actions taken in connection with our review and management of our pipeline.

The decreases in R&D expense for both the three and six months ended June 30, 2019 were primarily a result of an upfront payment of $35.0 million related to the Nevakar, Inc. agreement described above, which was recorded as Research and development expense during the three months ended June 30, 2018, the January 2018 Restructuring Initiative and other cost reduction initiatives and reduced costs associated with our clinical trials of CCH for the treatment of cellulite. Partially offsetting these decreases was the impact of costs associated with certain post-marketing commitments.

Litigation-related and other contingencies, net. Included within Litigation-related and other contingencies, net are changes to our accruals for litigation-related settlement charges and certain settlement proceeds related to suits filed by our subsidiaries. Our material legal proceedings and other contingent matters are described in more detail in Note 13. Commitments and Contingencies of the Condensed Consolidated Financial Statements included in Part I, Item 1. As further described therein, adjustments to the corresponding liability accruals may be required in the future. This could have a material adverse effect on our business, financial condition, results of operations and cash flows.

Asset impairment charges. The following table presents the components of our total Asset impairment charges for the three and six months ended June 30, 2019 and 2018 (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Goodwill impairment charges	$ 65,108	$ —	$ 151,108	$ 391,000
Other intangible asset impairment charges	21,699	22,767	100,399	76,967
Property, plant and equipment impairment charges	1,631	—	2,379	3,216
Total asset impairment charges	$ 88,438	$ 22,767	$ 253,886	$ 471,183

The factors leading to our material goodwill and intangible asset impairment tests, as well as the results of these tests, are further described in Note 9. Goodwill and Other Intangibles of the Condensed Consolidated Financial Statements included in Part I, Item 1. A discussion of critical accounting estimates made in connection with certain of our impairment tests is included below under the caption "CRITICAL ACCOUNTING ESTIMATES."

Acquisition-related and integration items. Acquisition-related and integration items for the three and six months ended June 30, 2019 and 2018 primarily consist of the net (benefit) expense from changes in the fair value of acquisition-related contingent consideration liabilities resulting from changes to our estimates regarding the timing and amount of the future revenues of the underlying products and changes in other assumptions impacting the probability of, and extent to which we will incur related contingent obligations. See Note 6. Fair Value Measurements of the Condensed Consolidated Financial Statements included in Part I, Item 1 for further discussion of our acquisition-related contingent consideration.

Interest expense, net. The components of Interest expense, net for the three and six months ended June 30, 2019 and 2018 are as follows (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Interest expense	$ 139,843	$ 133,339	$ 276,949	$ 260,852
Interest income	(5,034)	(3,280)	(9,465)	(6,803)
Interest expense, net	$ 134,809	$ 130,059	$ 267,484	$ 254,049

The increases in interest expense for both the three and six months ended June 30, 2019 were primarily attributable to increases to the London Interbank Offered Rate (LIBOR) that impacted our variable-rate debt and increases to the weighted average interest rate applicable to our senior notes and senior secured notes following the March 2019 Refinancing Transactions. These increases were partially offset by the impact of reductions to our average indebtedness during the three and six months ended June 30, 2019 following the March 2019 Refinancing Transactions.

Although we cannot predict future interest rates with certainty, absent actions to reduce the weighted average interest rate or the principal amount of our debt, interest expense is likely to increase in 2019 as compared to 2018, primarily as a result of increases in LIBOR, the impact of the March 2019 Refinancing Transactions, which increased our weighted average interest rate and reduced the outstanding principal of our debt, and the June 2019 Revolving Credit Facility draw of $300.0 million. Refer to Note 12. Debt of the Condensed Consolidated Financial Statements included in Part I, Item 1 for further discussion of these transactions.

Interest income varies primarily based on the amounts of our interest-bearing investments, such as money markets, as well as changes in the corresponding interest rates.

Gain on extinguishment of debt. Gain on extinguishment of debt totaled $119.8 million for the six months ended June 30, 2019, with no such amounts recorded in any of the other periods presented. The amount during the six months ended June 30, 2019 related to the March 2019 Refinancing Transactions. Refer to Note 12. Debt of the Condensed Consolidated Financial Statements included in Part I, Item 1 for further discussion.

Other (income) expense, net. The components of Other (income) expense, net for the three and six months ended June 30, 2019 and 2018 are as follows (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Net gain on sale of business and other assets	$ (2,462)	$ (24,577)	$ (1,168)	$ (26,993)
Foreign currency loss (gain), net	2,041	(3)	3,757	(2,088)
Net loss (gain) from our investments in the equity of other companies	269	(305)	2,355	2,321
Other miscellaneous, net	(445)	(3,946)	(739)	(4,949)
Other (income) expense, net	$ (597)	$ (28,831)	$ 4,205	$ (31,709)

Net gain on sale of business and other assets primarily relates to the sales of various ANDAs. Amounts of Foreign currency loss (gain), net result from the remeasurement of the Company's foreign currency denominated assets and liabilities. Net loss (gain) from our investments in the equity of other companies includes the income statement impacts of our investments in the equity of other companies, which primarily relate to investments accounted for under the equity method.

Income tax expense. The following table displays our Loss from continuing operations before income tax, Income tax expense and Effective tax rate for the three and six months ended June 30, 2019 and 2018 (dollars in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Loss from continuing operations before income tax	$ (94,584)	$ (46,244)	$ (96,293)	$ (528,491)
Income tax expense	$ 3,468	$ 6,235	$ 14,371	$ 21,726
Effective tax rate	*(3.7)%*	*(13.5)%*	*(14.9)%*	*(4.1)%*

Our tax rate is affected by recurring items, such as tax rates in non-U.S. jurisdictions as compared to the notional U.S. federal statutory tax rate, and the relative amount of income or loss in those various jurisdictions. It is also impacted by certain items that may occur in any given period, but are not consistent from period to period.

The income tax expense for the three months ended June 30, 2019 primarily relates to accrued interest on uncertain tax positions. The income tax expense for the comparable 2018 period primarily relates to the geographic mix of pre-tax earnings.

The income tax expense for the six months ended June 30, 2019 primarily relates to a taxable gain arising from the extinguishment of debt in the March 2019 Refinancing Transactions and accrued interest on uncertain tax positions. The income tax expense for the comparable 2018 period primarily relates to the geographic mix of pre-tax earnings and discrete tax expense incurred in connection with an intercompany asset restructuring.

We have valuation allowances established against our deferred tax assets in most jurisdictions in which we operate, with the exception of Canada and India. Accordingly, it would be unlikely for future pre-tax losses to create a tax benefit that would be more likely than not to be realized. Although the Company has valuation allowances established against deferred tax assets in most major jurisdictions as of June 30, 2019, it is possible that there could be material reversals, particularly if certain proposed law changes were to be enacted.

The Internal Revenue Service (IRS) presently is examining certain of our subsidiaries' U.S. income tax returns for fiscal years ending between December 31, 2011 and December 31, 2015 and, in connection with those examinations, is reviewing our tax positions related to, among other things, certain intercompany arrangements, including the level of profit earned by our U.S. subsidiaries pursuant to such arrangements, and a worthless stock deduction directly attributable to product liability losses. The IRS may examine our tax returns for other fiscal years and/or for other tax positions. Similarly, other tax authorities including the Canadian Revenue Authority are currently examining our non-U.S. tax returns. Additionally, other jurisdictions where we are not currently under audit remain subject to potential future examination. Such examinations may lead to proposed or actual adjustments to our taxes that may be material, individually or in the aggregate. An adverse outcome of these tax examinations could have a material adverse effect on our business, financial condition, results of operations and cash flows.

For additional information on our income taxes, see Note 17. Income Taxes of the Condensed Consolidated Financial Statements included in Part I, Item 1.

Discontinued operations, net of tax. The operating results of the Company's Astora business, which the Board of Directors resolved to wind-down in 2016, are reported as Discontinued operations, net of tax in the Condensed Consolidated Statements of Operations for all periods presented. The following table provides the operating results of Astora Discontinued operations, net of tax, for the three and six months ended June 30, 2019 and 2018 (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Discontinued operations, net of tax	$ (7,953)	$ (8,388)	$ (13,914)	$ (16,139)

These amounts include Litigation-related and other contingencies, net, mesh-related legal defense costs and certain other items. For additional discussion of mesh-related matters, refer to Note 13. Commitments and Contingencies of the Condensed Consolidated Financial Statements included in Part I, Item 1.

Key Trends. We estimate that the following factors will impact our 2019 total revenues as compared to 2018:

- growth in the Specialty Products portfolio of our Branded Pharmaceuticals segment, primarily driven by increased revenues following continued investments in XIAFLEX®;
- growth in the Sterile Injectables segment, driven by continued performance of VASOSTRICT® and ADRENALIN® and the full-year impact of ertapenem for injection, which launched during the third quarter of 2018; and
- declines in the Generic Pharmaceuticals segment, the Established Products portfolio of the Branded Pharmaceuticals segment and the International Pharmaceuticals segment, primarily driven by continued competitive pressures impacting these product portfolios.

These estimated trends reflect the current expectations of the Company's management team based on information currently known to them. These estimates are subject to risks and uncertainties that could cause our actual results to differ materially from those indicated by such estimated trends.

Business Segment Results Review

During the first quarter of 2019, the Company changed the names of its reportable segments. This change, which was intended to simplify the segments' names, had no impact on the Company's unaudited Condensed Consolidated Financial Statements or segment results for any of the periods presented. For further details regarding this change and a discussion of our reportable segments and how we evaluate segment performance, refer to Note 5. Segment Results of the Condensed Consolidated Financial Statements included in Part I, Item 1.

We refer to adjusted income from continuing operations before income tax, a financial measure not determined in accordance with U.S. GAAP, in making operating decisions because we believe it provides meaningful supplemental information regarding our operational performance. For instance, we believe that this measure facilitates internal comparisons to our historical operating results and comparisons to competitors' results. We believe this measure is useful to investors in allowing for greater transparency related to supplemental information used in our financial and operational decision-making. Further, we believe that adjusted income from continuing operations before income tax may be useful to investors as we are aware that certain of our significant shareholders utilize adjusted income from continuing operations before income tax to evaluate our financial performance. Finally, adjusted income from continuing operations before income tax is utilized in the calculation of other financial measures not determined in accordance with U.S. GAAP that are used by the Compensation Committee of the Company's Board of Directors in assessing the performance and compensation of substantially all of our employees, including our executive officers.

There are limitations to using financial measures such as adjusted income from continuing operations before income tax. Other companies in our industry may define adjusted income from continuing operations before income tax differently than we do. As a result, it may be difficult to use adjusted income from continuing operations before income tax or similarly named adjusted financial measures that other companies may use to compare the performance of those companies to our performance. Because of these limitations, adjusted income from continuing operations before income tax is not intended to represent cash flow from operations as defined by U.S. GAAP and should not be used as an indicator of operating performance, a measure of liquidity or as alternative to net income, cash flows or any other financial measure determined in accordance with U.S. GAAP. We compensate for these limitations by providing reconciliations of our total segment adjusted income from continuing operations before income tax to our Total consolidated loss from continuing operations before income tax, which is determined in accordance with U.S. GAAP and included in our Condensed Consolidated Statements of Operations.

Revenues, Net. The following table displays our revenue by reportable segment for the three and six months ended June 30, 2019 and 2018 (in thousands):

	Three Months Ended June 30,		% Change	Six Months Ended June 30,		% Change
	2019	2018	2019 vs. 2018	2019	2018	2019 vs. 2018
Branded Pharmaceuticals	$ 209,013	$ 212,637	(2)%	$ 412,538	$ 412,872	— %
Sterile Injectables	244,280	217,843	12 %	514,328	433,697	19 %
Generic Pharmaceuticals	217,784	241,236	(10)%	436,310	490,476	(11)%
International Pharmaceuticals (1)	28,650	42,980	(33)%	56,962	78,178	(27)%
Total net revenues from external customers	$ 699,727	$ 714,696	(2)%	$ 1,420,138	$ 1,415,223	— %

(1) Revenues generated by our International Pharmaceuticals segment are primarily attributable to external customers located in Canada.

Branded Pharmaceuticals. The following table displays the significant components of our Branded Pharmaceuticals revenues from external customers for the three and six months ended June 30, 2019 and 2018 (in thousands):

	Three Months Ended June 30,		% Change	Six Months Ended June 30,		% Change
	2019	2018	2019 vs. 2018	2019	2018	2019 vs. 2018
Specialty Products:						
XIAFLEX®	$ 74,855	$ 63,500	18 %	$ 143,362	$ 120,641	19 %
SUPPRELIN® LA	23,714	19,963	19 %	45,770	40,540	13 %
Other Specialty (1)	25,524	22,585	13 %	49,927	41,612	20 %
Total Specialty Products	$ 124,093	$ 106,048	17 %	$ 239,059	$ 202,793	18 %
Established Products:						
PERCOCET®	$ 28,878	$ 30,833	(6)%	$ 59,638	$ 62,809	(5)%
TESTOPEL®	11,780	13,844	(15)%	27,594	29,014	(5)%
Other Established (2)	44,262	61,912	(29)%	86,247	118,256	(27)%
Total Established Products	$ 84,920	$ 106,589	(20)%	$ 173,479	$ 210,079	(17)%
Total Branded Pharmaceuticals (3)	$ 209,013	$ 212,637	(2)%	$ 412,538	$ 412,872	— %

(1) Products included within Other Specialty are NASCOBAL® Nasal Spray and AVEED®. Beginning with our first-quarter 2019 reporting, TESTOPEL®, which was previously included in Other Specialty, has been reclassified and is now included in the Established Products portfolio for all periods presented.
(2) Products included within Other Established include, but are not limited to, LIDODERM®, VOLTAREN® Gel, EDEX®, FORTESTA® Gel, and TESTIM®, including the authorized generics of TESTIM® and FORTESTA® Gel.
(3) Individual products presented above represent the top two performing products in each product category for either the three or six months ended June 30, 2019 and/or any product having revenues in excess of $25 million during any quarterly period in 2019 or 2018.

Specialty Products

The increases in net sales of XIAFLEX® for both the three and six months ended June 30, 2019 were primarily attributable to demand growth driven by the continued investment and promotional efforts behind XIAFLEX®, as well as price.

The increases in net sales of SUPPRELIN® LA for both the three and six months ended June 30, 2019 were primarily attributable to increases in both volume and price.

The increases in net sales of Other Specialty Products for both the three and six months ended June 30, 2019 were primarily attributable to increased sales of both NASCOBAL® Nasal Spray and AVEED®. When compared to the three and six months ended June 30, 2018, these products generally benefited from increased volumes.

Established Products

The decreases in net sales of PERCOCET® for both the three and six months ended June 30, 2019 were primarily attributable to volume decreases, partially offset by price increases.

The decrease in net sales of TESTOPEL® for the three months ended June 30, 2019 was primarily attributable to decreased volume. The decrease in net sales for the six months ended June 30, 2019 was attributable to both price and volume decreases.

The decreases in net sales of Other Established Products for both the three and six months ended June 30, 2019 were primarily attributable to volume decreases as a result of ongoing competitive pressure from generic competition.

Sterile Injectables. The following table displays the significant components of our Sterile Injectables revenues from external customers for the three and six months ended June 30, 2019 and 2018 (dollars in thousands):

	Three Months Ended June 30,		% Change	Six Months Ended June 30,		% Change
	2019	2018	2019 vs. 2018	2019	2018	2019 vs. 2018
VASOSTRICT®	$ 116,026	$ 106,329	9 %	$ 255,163	$ 220,054	16 %
ADRENALIN®	45,835	36,658	25 %	93,157	66,398	40 %
Ertapenem for injection	25,547	—	NM	57,766	—	NM
Other Sterile Injectables (1)	56,872	74,856	(24)%	108,242	147,245	(26)%
Total Sterile Injectables (2)	$ 244,280	$ 217,843	12 %	$ 514,328	$ 433,697	19 %

NM indicates that the percentage change is not meaningful or is greater than 100%.

(1) Products included within Other Sterile Injectables include, but are not limited to, APLISOL® and ephedrine sulfate injection.

(2) Individual products presented above represent the top two performing products within the Sterile Injectables segment for either the three or six months ended June 30, 2019 and/or any product having revenues in excess of $25 million during any quarterly period in 2019 or 2018.

The increases in net sales of VASOSTRICT® for the three and six months ended June 30, 2019 were primarily attributable to changes in price and mix of business. As further discussed in Note 13. Commitments and Contingencies of the Condensed Consolidated Financial Statements included in Part I, Item 1, as a result of the FDA finalizing the vasopressin clinical need determination in March 2019, it is unlawful for outsourcing facilities to sell compounded vasopressin products unless they manufacture those products using an FDA-approved vasopressin. VASOSTRICT® is currently the only vasopressin product approved by the FDA. However, Athenex, Inc., Athenex Pharma Solutions, LLC, and Athenex Pharmaceutical Division, LLC filed a complaint in the U.S. District Court for the District of Columbia, challenging the FDA's clinical need determination for vasopressin. EPIC and PSP intervened as defendants in the action. The parties and the court agreed to an expedited summary judgment briefing, and a hearing on cross-motions for summary judgment was held in April 2019. In August 2019, the court granted EPIC and PSP's motion for summary judgment and denied the Athenex entities' motion for summary judgment. The Athenex entities subsequently filed a motion for a stay or injunction of the court's order pending a forthcoming appeal.

As of June 30, 2019, we have six patents for VASOSTRICT® listed in the Orange Book and additional patents pending with the U.S. Patent and Trademark Office. The FDA requires any applicant seeking FDA approval for vasopressin prior to patent expiry and relying on VASOSTRICT® as the Reference Listed Drug to notify us of its filing before the FDA will issue an approval.

We are aware of certain competitive actions taken by other pharmaceutical companies related to VASOSTRICT®. These matters are further discussed in Note 13. Commitments and Contingencies of the Condensed Consolidated Financial Statements included in Part I, Item 1 under the heading "VASOSTRICT® Related Matters." We have taken and plan to continue to take actions in our best interest to protect our rights with respect to VASOSTRICT®. The introduction of any competing versions of VASOSTRICT® could result in reductions to our market share, revenues, profitability and cash flows.

The increases in net sales of ADRENALIN® for the three and six months ended June 30, 2019 were primarily attributable to increased price and volume.

Ertapenem for injection, the authorized generic of Invanz®, launched during the third quarter of 2018 and had no sales during the three and six months ended June 30, 2018.

The decreases in net sales of Other Sterile Injectables for both the three and six months ended June 30, 2019 were primarily driven by the timing of shipments for certain products in this portfolio and certain competitive pressures.

Generic Pharmaceuticals. The decreases in revenue for the Generic Pharmaceuticals segment for both the three and six months ended June 30, 2019 were primarily attributable to continued competitive pressure on commoditized generic products. Partially offsetting the decreases were the impacts of certain recent product launches including, among others, colchicine tablets.

International Pharmaceuticals. The decreases in revenue for the International Pharmaceuticals segment for both the three and six months ended June 30, 2019 were primarily attributable to competitive pressures in certain international markets and the impact of actions taken related to planned product discontinuations.

Adjusted income from continuing operations before income tax. The following table displays our Adjusted income from continuing operations before income tax by reportable segment for the three and six months ended June 30, 2019 and 2018 (in thousands):

	Three Months Ended June 30,		% Change	Six Months Ended June 30,		% Change
	2019	2018	2019 vs. 2018	2019	2018	2019 vs. 2018
Branded Pharmaceuticals	$ 82,965	$ 83,749	(1)%	$ 161,973	$ 177,563	(9)%
Sterile Injectables	172,188	173,308	(1)%	368,371	342,753	7 %
Generic Pharmaceuticals	49,308	90,302	(45)%	99,305	164,582	(40)%
International Pharmaceuticals	11,447	18,499	(38)%	23,542	32,217	(27)%
Total segment adjusted income from continuing operations before income tax	$ 315,908	$ 365,858	(14)%	$ 653,191	$ 717,115	(9)%

Branded Pharmaceuticals. The decreases for both the three and six months ended June 30, 2019 were primarily attributable to increased Selling, general and administrative expenses, including legal costs related to certain litigation matters and costs related to our continued investment and promotional efforts behind XIAFLEX®. The decrease for the three months ended June 30, 2019 also reflects the overall decrease in revenues for this segment as described above. Partially offsetting the decreases for both the three and six months ended June 30, 2019 was the impact of lower Research and development expense resulting from reduced costs associated with our clinical trials of CCH for the treatment of cellulite, partially offset by increased costs associated with certain post-marketing commitments.

Sterile Injectables. The decrease during the three months ended June 30, 2019 reflects the impact of changes in product mix, including the revenue increase related to ertapenem for injection, which is an authorized generic product that launched in the third quarter of 2018. The increase during the six months ended June 30, 2019 was primarily attributable to increased revenues and gross margins resulting from the strong performance of a variety of products in this segment.

Generic Pharmaceuticals. The decreases for both the three and six months ended June 30, 2019 were primarily attributable to decreased revenues as described above and the resulting reductions to gross margin. These decreases were partially offset by reduced expenses, including cost savings associated with certain restructuring and other cost saving initiatives and, during the six months ended June 30, 2019, a lower branded prescription drug fee. Our material restructuring initiatives are described in Note 4. Restructuring of the Condensed Consolidated Financial Statements included in Part I, Item 1

International Pharmaceuticals. The decreases for both the three and six months ended June 30, 2019 were primarily attributable to decreased revenues as described above and the resulting reductions to gross margin, partially offset by decreases to Selling, general and administrative expenses.

The table below provides reconciliations of our Total consolidated loss from continuing operations before income tax, which is determined in accordance with U.S. GAAP, to our total segment adjusted income from continuing operations before income tax for the three and six months ended June 30, 2019 and 2018 (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Total consolidated loss from continuing operations before income tax	$ (94,584)	$ (46,244)	$ (96,293)	$ (528,491)
Interest expense, net	134,809	130,059	267,484	254,049
Corporate unallocated costs (1)	38,365	43,046	86,460	95,506
Amortization of intangible assets	140,418	153,215	286,017	310,387
Inventory step-up	—	124	—	190
Upfront and milestone payments to partners	1,444	36,964	2,383	38,296
Separation benefits and other cost reduction initiatives (2)	2,124	29,153	4,149	78,140
Certain litigation-related and other contingencies, net (3)	10,315	19,620	10,321	17,120
Asset impairment charges (4)	88,438	22,767	253,886	471,183
Acquisition-related and integration items (5)	(5,507)	5,161	(43,008)	11,996
Gain on extinguishment of debt	—	—	(119,828)	—
Foreign currency impact related to the remeasurement of intercompany debt instruments	2,262	(574)	3,796	(3,088)
Other, net (6)	(2,176)	(27,433)	(2,176)	(28,173)
Total segment adjusted income from continuing operations before income tax	$ 315,908	$ 365,858	$ 653,191	$ 717,115

(1) Amounts include certain corporate overhead costs, such as headcount, facility and corporate litigation expenses and certain other income and expenses.
(2) Amounts for the three and six months ended June 30, 2019 primarily relate to employee separation costs of $0.4 million and $2.2 million, respectively, and other charges of $1.7 million and $1.9 million, respectively. Amounts for the three and six months ended June 30, 2018 primarily relate to employee separation costs of $5.4 million and $30.6 million, respectively, accelerated depreciation of $18.1 million and $35.2 million, respectively, charges to increase excess inventory reserves of $0.2 million and $2.6 million, respectively, and other charges of $5.4 million and $9.7 million, respectively. These charges were related primarily to our restructuring initiatives. See Note 4. Restructuring of the Condensed Consolidated Financial Statements included in Part I, Item 1 for discussion of our material restructuring initiatives.
(3) Amounts include adjustments for Litigation-related and other contingencies, net as further described in Note 13. Commitments and Contingencies.
(4) Amounts primarily relate to charges to impair goodwill and intangible assets as further described in Note 9. Goodwill and Other Intangibles.
(5) Amounts primarily relate to changes in the fair value of contingent consideration.
(6) Amounts primarily relate to gains on sales of businesses and other assets.

LIQUIDITY AND CAPITAL RESOURCES

Our principal source of liquidity is cash generated from operations. Our principal liquidity requirements are primarily for working capital for operations, licenses, milestone payments, capital expenditures, acquisitions, contingent liabilities, debt service payments and litigation-related matters, including vaginal mesh liability payments. The Company's working capital was $919.2 million at June 30, 2019 compared to working capital of $393.1 million at December 31, 2018. The amounts at June 30, 2019 and December 31, 2018 include restricted cash and cash equivalents of $306.4 million and $299.7 million, respectively, held in QSFs for mesh-related matters. Although these amounts in QSFs are included in working capital, they are required to be used for mesh product liability settlement agreements.

Cash and cash equivalents, which primarily consisted of bank deposits and money market accounts, totaled $1,446.9 million at June 30, 2019 compared to $1,149.1 million at December 31, 2018. We expect our operating cash flows, together with our cash, cash equivalents, restricted cash and restricted cash equivalents to be sufficient to cover our principal liquidity requirements over the next year. However, on a longer term basis, we may not be able to accurately predict the effect of certain developments on our sales and gross margins, such as the degree of market acceptance, patent protection and exclusivity of our products, pricing pressures (including those due to the impact of competition), the effectiveness of our sales and marketing efforts and the outcome of our current efforts to develop, receive approval for and successfully launch our product candidates. We may also face unexpected expenses in connection with our business operations, including expenses related to our ongoing and future legal proceedings and governmental investigations and other contingent liabilities. Furthermore, we may not be successful in implementing, or may face unexpected changes or expenses in connection with our strategic direction, including the potential for opportunistic corporate development transactions. Any of the above could have a material adverse effect on our business, financial condition, results of operations and cash flows.

From time to time, we may seek to enter into certain transactions to reduce the extent of our leverage and/or interest expense and/or to extend the maturities of our outstanding indebtedness. Such transactions could include, for example, transactions to exchange existing indebtedness for our ordinary shares, to issue equity (including convertible securities) or to repurchase, redeem or refinance our existing indebtedness (including the Credit Agreement). In order to finance any such transactions, we may need to obtain additional funding. Any of these transactions could impact our liquidity.

We may also require additional financing to fund our future operational needs or for future corporate transactions, including acquisitions. We have historically had broad access to financial markets that provide liquidity; however, we cannot be certain that funding will be available to us in the future on terms acceptable to us, or at all. Any issuances of equity securities or convertible securities, in connection with an acquisition or otherwise, could have a dilutive effect on the ownership interest of our current shareholders and may adversely impact net income per share in future periods. An acquisition may be accretive or dilutive and, by its nature, involves numerous risks and uncertainties. As a result of acquisition efforts, if any, we are likely to experience significant charges to earnings for merger and related expenses (whether or not the acquisitions are consummated) that may include transaction costs, closure costs or costs of restructuring activities.

Borrowings. The Company and/or certain of its subsidiaries are party to the Credit Agreement, which governs the Credit Facilities, and the indentures governing our various senior secured and senior unsecured notes. As of June 30, 2019, approximately $3.3 billion was outstanding under the Term Loan Facility, approximately $0.3 billion was outstanding under the Revolving Credit Facility and approximately $4.8 billion was outstanding under the senior secured and senior unsecured notes.

The $300.0 million under the Revolving Credit Facility was borrowed by the Company in June 2019. The Company expects to use the proceeds from this borrowing for purposes consistent with the Company's previously stated capital allocation priorities, including for general corporate purposes. After giving effect to this transaction and previously issued and outstanding letters of credit, approximately $696.8 million of remaining credit is available under the Revolving Credit Facility. However, the Company's debt agreements contain certain conditions that limit the Company's ability to incur additional secured indebtedness, including borrowings under the Revolving Credit Facility, which significantly restrict the Company's access to this remaining available credit.

The Company and its subsidiaries, with certain customary exceptions, guarantee or serve as issuers or borrowers of the debt instruments representing substantially all of the Company's indebtedness at June 30, 2019.

The Credit Agreement contains affirmative and negative covenants that the Company believes to be usual and customary for a senior secured credit facility of this type. The negative covenants include, among other things, limitations on asset sales, mergers and acquisitions, indebtedness, liens, dividends and other restricted payments, investments and transactions with the Company's affiliates. As of June 30, 2019 and December 31, 2018, we were in compliance with all such covenants.

The Company's notes mature between 2022 and 2027, subject to earlier repurchase or redemption in accordance with the terms of the respective indentures. Interest rates on these notes range from 5.375% to 7.50%. Certain of these notes are senior unsecured obligations of the Company's subsidiaries party to the applicable indentures governing such notes.

The indentures governing our various senior notes contain affirmative and negative covenants that the Company believes to be usual and customary for similar indentures. Under the senior secured notes indentures, the negative covenants, among other things, restrict the Company's ability and the ability of its Restricted Subsidiaries (as defined in the indentures) to incur certain additional indebtedness and issue preferred stock; make certain dividends, distributions, investments and other restricted payments; sell certain assets; enter into sale and leaseback transactions; agree to certain restrictions on the ability of restricted subsidiaries to make certain payments to the Company or any of its restricted subsidiaries; create certain liens; merge, consolidate or sell all or substantially all of the Company's assets; enter into certain transactions with affiliates or designate subsidiaries as unrestricted subsidiaries. Under the senior unsecured notes indentures, the negative covenants, among other things, restrict the ability of Endo Designated Activity Company and its Restricted Subsidiaries (as defined in the indentures) to incur certain additional indebtedness and issue preferred stock; make certain dividends, distributions, investments and other restricted payments; sell certain assets; enter into sale and leaseback transactions; agree to certain restrictions on the ability of restricted subsidiaries to make certain payments to the issuer or any of the restricted subsidiaries; create certain liens; merge, consolidate or sell all or substantially all of Endo Designated Activity Company's, its co-issuers' or guarantors' assets; enter into certain transactions with affiliates or designate subsidiaries as unrestricted subsidiaries. These covenants are subject to a number of exceptions and qualifications, including the fall away or revision of certain of these covenants and release of collateral in the case of the senior secured notes, upon the notes receiving investment grade credit ratings. As of June 30, 2019 and December 31, 2018, we were in compliance with all such covenants.

The obligations under (i) the Credit Agreement and related loan documents and (ii) the indentures governing the senior secured notes and related documents are secured on a *pari passu* basis by a perfected first priority (subject to certain permitted liens) lien on substantially all of the assets of the borrowers and the guarantors (subject to customary exceptions).

Credit ratings. The Company's corporate credit ratings assigned by Moody's Investors Service and Standard & Poor's are B3 with a stable outlook and B with a stable outlook, respectively.

Working capital. The components of our working capital and our liquidity at June 30, 2019 and December 31, 2018 are below (dollars in thousands):

	June 30, 2019	December 31, 2018
Total current assets	$ 2,755,052	$ 2,343,150
Less: total current liabilities	1,835,820	1,950,096
Working capital	$ 919,232	$ 393,054
Current ratio (total current assets divided by total current liabilities)	1.5:1	1.2:1

Net working capital increased by $526.2 million from December 31, 2018 to June 30, 2019. This increase primarily reflects the increase to cash of $300.0 million as a result of the June 2019 borrowing under the Revolving Credit Facility and the favorable impact to net current assets resulting from operations during the six months ended June 30, 2019. This activity was partially offset by certain items that occurred during the six months ended June 30, 2019 including, but not limited to, the impact of adopting ASC 842, which resulted in a net decrease to working capital of approximately $10.7 million, purchases of property, plant and equipment, excluding capitalized interest, of $23.6 million and our incurrence of financing fees in connection with the March 2019 Refinancing Transactions.

The following table summarizes our Condensed Consolidated Statements of Cash Flows for the six months ended June 30, 2019 and 2018 (in thousands):

	2019	2018
Net cash flow provided by (used in):		
Operating activities	$ 86,602	$ 219,132
Investing activities	(22,316)	(8,988)
Financing activities	234,929	(40,793)
Effect of foreign exchange rate	841	(1,010)
Net increase in cash, cash equivalents, restricted cash and restricted cash equivalents	$ 300,056	$ 168,341

Operating activities. Net cash provided by operating activities represents the cash receipts and cash disbursements from all of our activities other than investing activities and financing activities. Changes in cash from operating activities reflect, among other things, the timing of cash collections from customers, payments to suppliers, managed care organizations, government agencies, collaborative partners and employees, as well as tax payments and refunds in the ordinary course of business.

The $132.5 million decrease in Net cash provided by operating activities during the six months ended June 30, 2019 compared to the prior year period was primarily due to our results of operations as described above and the timing of cash collections and cash payments related to our operations. Included within this decrease were the impacts of increased cash outflows for certain mesh-related and LIDODERM®-related matters of approximately $1.2 million and $30.0 million, respectively, and higher cash paid for interest as a result of increased interest rates and approximately $20.3 million of interest paid early as a result of the Notes Repurchases described in Note 12. Debt of the Condensed Consolidated Financial Statements included in Part I, Item 1. Additionally, we increased inventory levels during the six months ended June 30, 2019 in advance of certain recent and planned future product launches, which utilized cash. We expect that payments for previously accrued legal matters, which are further discussed in Note 13. Commitments and Contingencies of the Condensed Consolidated Financial Statements included in Part I, Item 1, and the potential increases to interest expense discussed above will continue to impact our Net cash provided by operating activities in future periods.

Investing activities. The $13.3 million increase in Net cash used in investing activities during the six months ended June 30, 2019 compared to the prior year period reflects a decrease in Proceeds from sale of business and other assets, net of $35.4 million, offset in part by a decrease in Purchases of property, plant and equipment, excluding capitalized interest of $18.3 million and changes in Other investing activities of $4.2 million.

Financing activities. During the six months ended June 30, 2019, Net cash provided by financing activities related primarily to the $300.0 million June 2019 borrowing under the Revolving Credit Facility. The proceeds from this transaction were offset by Repayments of term loans of $17.1 million, Payments for contingent consideration of $8.2 million, Payments of tax withholding for restricted shares of $9.4 million, Repayments of other indebtedness of $6.7 million and the net effect of the March 2019 Refinancing Transactions, which resulted in Proceeds from issuance of notes, net of $1,483.1 million, cash used for Repayments of notes totaling $1,500.0 million and Payments for debt issuance and extinguishment costs of $5.1 million.

During the six months ended June 30, 2018, Net cash used in financing activities related primarily to Payments for contingent consideration of $19.3 million and Repayments of term loans of $17.1 million.

Contractual Obligations. As of June 30, 2019, there were no material changes in our contractual obligations from those disclosed in the Annual Report except for those related to the financing transactions described in Note 12. Debt of the Condensed Consolidated Financial Statements included in Part I, Item 1. Additionally, Note 8. Leases of the Condensed Consolidated Financial Statements included in Part I, Item 1 includes the undiscounted amounts of future cash flows included in our lease liabilities at June 30, 2019 for each of the five years subsequent to December 31, 2018 and thereafter.

Fluctuations. Our quarterly results have fluctuated in the past and may continue to fluctuate. These fluctuations may be due to the timing of new product launches, purchasing patterns of our customers, market acceptance of our products, the impact of competitive products and pricing, certain actions taken by us which may impact the availability of our products, asset impairment charges, litigation-related charges, restructuring costs including separation benefits business combination transaction costs, the impact of financing transactions, upfront, milestone and certain other payments made or accrued pursuant to licensing agreements and changes in the fair value of financial instruments and contingent assets and liabilities recorded as part of business combinations. Further, a substantial portion of our total revenues are through three wholesale drug distributors who in turn supply our products to pharmacies, hospitals and physicians. Accordingly, we are potentially subject to a concentration of credit risk with respect to our trade receivables.

Inflation. We do not believe that inflation had a material adverse effect on our financial statements for the periods presented.

Off-balance sheet arrangements. We have no off-balance sheet arrangements as defined in Item 303(a)(4) of Regulation S-K.

CRITICAL ACCOUNTING ESTIMATES

Significant changes to our critical accounting estimates since December 31, 2018 are detailed below. For additional discussion of the Company's critical accounting estimates, see "Critical Accounting Estimates" in Item 7 of the Annual Report.

Goodwill and indefinite-lived intangible assets

As further described in Note 9. Goodwill and Other Intangibles of the Condensed Consolidated Financial Statements included in Part I, Item 1, we recorded pre-tax, non-cash goodwill impairment charges relating to our Generic Pharmaceuticals reporting unit of $86.0 million and $65.1 million during the first and second quarters of 2019, respectively. Following the second-quarter 2019 impairment, there was no remaining goodwill associated with this reporting unit.

We have not made any substantial changes to our methodology used in our impairment tests since our previous assessment. Determination of the fair value of a reporting unit is a matter of judgment and involves the use of estimates and assumptions, which are based on management's best estimates at the time. The use of different assumptions would increase or decrease our estimated discounted future cash flows and the resulting estimated fair value of our reporting units, and could result in the fair value of a reporting unit being less than its carrying amount in the impairment test. Any resulting non-cash impairment charges could be material.

RECENT ACCOUNTING PRONOUNCEMENTS

For a discussion of recent accounting pronouncements, refer to Note 2. Summary of Significant Accounting Policies of the Condensed Consolidated Financial Statements included in Part I, Item 1.

Item 3. *Quantitative and Qualitative Disclosures About Market Risk*

Market risk is the potential loss arising from adverse changes in the financial markets, including interest rates and foreign currency exchange rates.

Interest Rate Risk

Our exposure to interest rate risk relates primarily to our variable-rate indebtedness associated with our Credit Facilities. At June 30, 2019 and December 31, 2018, the aggregate principal amounts of such variable-rate indebtedness were $3,646.7 million and $3,363.8 million, respectively. Borrowings under the Credit Facilities may from time to time bear interest at variable rates, as further described in Note 12. Debt of the Condensed Consolidated Financial Statements included in Part I, Item 1, in certain cases subject to a floor. At June 30, 2019 and December 31, 2018, a hypothetical 1% increase in the applicable rate over the floor would have resulted in $36.5 million and $33.6 million, respectively, of incremental interest expense (representing the annual rate of expense) related to our variable-rate debt borrowings.

To the extent that we utilize additional amounts under the Revolving Credit Facility or otherwise increase the amount of our variable-rate indebtedness, we will be exposed to additional interest rate risk.

As of June 30, 2019 and December 31, 2018, we had no other assets or liabilities with significant interest rate sensitivity.

Foreign Currency Exchange Rate Risk

We operate and transact business in various foreign countries and are therefore subject to risks associated with foreign currency exchange rate fluctuations. The Company manages this foreign currency risk, in part, through operational means including managing foreign currency revenues in relation to same-currency costs and foreign currency assets in relation to same-currency liabilities. The Company is also exposed to potential earnings effects from intercompany foreign currency assets and liabilities that arise from normal trade receivables and payables and other intercompany loans. Additionally, certain of the Company's subsidiaries maintain their books of record in currencies other than their respective functional currencies. These subsidiaries' financial statements are remeasured into their respective functional currencies. Such remeasurement adjustments could have a material adverse effect on the Company's results of operations.

All assets and liabilities of our international subsidiaries, which maintain their financial statements in local currency, are translated to U.S. dollars at period-end exchange rates. Translation adjustments arising from the use of differing exchange rates are included in Accumulated other comprehensive loss. Gains and losses on foreign currency transactions and short-term intercompany receivables from foreign subsidiaries are included in Other (income) expense, net in the Condensed Consolidated Statements of Operations. Refer to Note 16. Other (Income) Expense, Net of the Condensed Consolidated Financial Statements included in Part I, Item 1 for the amount of Foreign currency loss (gain), net.

Based on the Company's significant foreign currency denominated intercompany loans, we separately considered the hypothetical impact of a 10% change in the underlying currencies of our foreign currency denominated intercompany loans, relative to the U.S. Dollar, at June 30, 2019 and December 31, 2018. A 10% change at June 30, 2019 would have resulted in approximately $11 million in incremental foreign currency losses on June 30, 2019. A 10% change at December 31, 2018 would have resulted in approximately $9 million in incremental foreign currency losses on December 31, 2018.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

The Company's management, with the participation of the Company's Chief Executive Officer and Principal Financial Officer, has evaluated the effectiveness of the Company's disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934, as of June 30, 2019. Based on that evaluation, the Company's Chief Executive Officer and Principal Financial Officer concluded that the Company's disclosure controls and procedures were effective as of June 30, 2019.

Changes in Internal Control over Financial Reporting

There have been no changes in the Company's internal control over financial reporting during the fiscal quarter ended June 30, 2019 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

The disclosures under Note 13. Commitments and Contingencies of the Condensed Consolidated Financial Statements included in Part I, Item 1 are incorporated into this Part II, Item 1 by reference.

Item 1A. Risk Factors

For a discussion of our risk factors, see the information in Part 1, Item 1A. “Risk Factors” in the Annual Report and the information in Part II, Item 1A under the caption “Risk Factors” of our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2019. There have been no material changes to our risk factors from those described in the Annual Report or our Quarterly Reports, except as set forth below.

Public concern around the abuse of opioids, including law enforcement concerns over diversion and marketing of opioids, and regulatory efforts to combat abuse, could result in costs to our business.

Media stories regarding prescription drug abuse and the diversion of opioids and other controlled substances are commonplace. Aggressive enforcement and unfavorable publicity regarding, for example, the use or misuse of opioid drugs; the limitations of abuse-deterrent formulations; the ability of drug abusers to discover previously unknown ways to abuse our products; public inquiries and investigations into prescription drug abuse; litigation or regulatory activity regarding sales, marketing, distribution or storage of opioids could have a material adverse effect on our reputation, on the results of litigation and on our ability to attract or maintain relationships with third-party partners, including suppliers, vendors, advisors, distributors, manufacturers, collaboration partners, administrators and agents.

Manufacturers of prescription opioid medications have been the subject of significant civil and criminal investigatory and enforcement action even in cases where such medications have received approval from the FDA or similar regulatory authorities. In addition, numerous governmental and private persons and entities are pursuing civil litigation against opioid manufacturers and distributors, invoking current laws and regulations relating to opioids and/or other prescription medicines, as well as novel uses of other laws that seek to hold accountable opioid manufacturers for opioid misuse. See Note 13. Commitments and Contingencies of the Condensed Consolidated Financial Statements included in Part I, Item 1 of this report for more information.

Regulatory actions at the federal, state and local level may seek to limit or restrict the manufacturing, distribution or sale of opioids, both directly and indirectly, and/or to impose novel policy or regulatory mechanisms regarding the manufacturing, distribution or sales of opioids. For example, in April 2019, New York enacted an excise tax on opioids. See the risk factor “Our business and financial condition may be adversely affected by legislation” in the Annual Report for more information. Many state legislatures are considering various bills intended to reduce opioid abuse such as by, for example, establishing prescription drug monitoring programs and mandating prescriber education.

Finally, various government entities, including Congress, state legislatures or other policy-making bodies may hold hearings, conduct investigations and/or issue reports calling attention to the opioid crisis, and may mention or criticize the role of manufacturers, including us, in the opioid crisis. Similarly, press organizations have and likely will continue to report on these issues, and such reporting has and may further result in adverse publicity for manufacturers, including us.

Further future changes to tax laws could materially adversely affect us.

Under current law, we are expected to be treated as a non-U.S. corporation for U.S. federal income tax purposes. However, changes to the rules in Section 7874 of the Internal Revenue Code (the Code) or regulations promulgated thereunder or other guidance issued by the Treasury or the U.S. IRS could adversely affect our status as a non-U.S. corporation for U.S. federal income tax purposes, and any such changes could have prospective or retroactive application to us, EHSI and/or their respective shareholders and affiliates. Consequently, there can be no assurance that there will not exist in the future a change in law that might cause us to be treated as a U.S. corporation for U.S. federal income tax purposes, including with retroactive effect.

In addition, recent Irish legislation created a “controlled foreign corporation” tax regime and future proposals may limit deductibility of certain interest and/or other payments made by our Irish subsidiaries from which we currently benefit. If such changes in law were enacted, it could have a material adverse effect on our business, financial condition, results of operations and cash flows.

In addition, Ireland’s Department of Finance, Luxembourg’s Ministry of Finance, the Organization for Economic Co-operation and Development, the European Commission and other government agencies in jurisdictions where we and our affiliates do business have had an extended focus on issues related to the taxation of multinational corporations and there are several current proposals that, if enacted, would substantially change the taxation of multinational corporations. One example is in the area of “base erosion and profit shifting,” where payments are made between affiliates from a jurisdiction with high tax rates to a jurisdiction with lower tax rates. As a result, the tax laws in the jurisdictions in which we operate could change on a prospective or retroactive basis, and any such changes, including those related to the allocation of income among or the ability to deduct payments made by our subsidiaries, could increase our effective tax rate, which could have a materially adverse impact on our financial statements and cash flows from operations.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

There were no purchases or sales of equity securities by the Company during the three months ended June 30, 2019.

Item 3. Defaults Upon Senior Securities

None.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

On July 30, 2019, the Company's Compensation Committee approved cash contribution retention arrangements and individual contribution retention bonus amounts (the Contribution Bonus) for certain senior management of the Company, excluding the Chief Executive Officer but including the following three named executive officers (each an NEO): Mr. Blaise Coleman, Executive Vice President and Chief Financial Officer, Mr. Terrance Coughlin, Executive Vice President and Chief Operating Officer and Mr. Matthew Maletta, Executive Vice President and Chief Legal Officer. The cash Contribution Bonus is being awarded to each NEO based on the critical nature of their leadership and contributions to the planning and execution of Endo's transformational strategy and multi-year turnaround plan.

The NEOs awarded the cash Contribution Bonus will each receive an aggregate award of $1,250,000, as outlined in each recipient's letter agreement (collectively, the Letter Agreements). Each cash Contribution Bonus award is scheduled to be paid in equal installments of $312,500 within thirty (30) days after each of the following dates: (1) September 30, 2019; (2) December 31, 2019; (3) June 30, 2020 and (4) December 31, 2020. Payment of each cash Contribution Bonus will be accelerated if a recipient's employment is terminated by the Company without cause before December 31, 2020 and will be paid within 30 days of the termination date. Any unearned cash Contribution Bonus amounts will be forfeited if a recipient NEO is terminated for cause or if the recipient NEO resigns. The foregoing description of the Letter Agreements does not purport to be complete and is qualified in its entirety to the full text of the Letter Agreements, copies of which are filed with this Quarterly Report on Form 10-Q as Exhibits 10.2, 10.3 and 10.4 and incorporated herein by reference.

Item 6. Exhibits

		Incorporated by Reference from:		
Number	**Description**	**File Number**	**Filing Type**	**Filing Date**
10.1	Endo International plc Amended and Restated 2015 Stock Incentive Plan	001-36326	Current Report on Form 8-K	June 11, 2019
10.2	Cash Contribution Bonus Agreement between Endo and Blaise Coleman, dated August 1, 2019	Not applicable; filed herewith		
10.3	Cash Contribution Bonus Agreement between Endo and Terrance J. Coughlin, dated August 1, 2019	Not applicable; filed herewith		
10.4	Cash Contribution Bonus Agreement between Endo and Matthew J. Maletta, dated August 1, 2019	Not applicable; filed herewith		
31.1	Certification of the President and Chief Executive Officer of Endo pursuant to Section 302 of the Sarbanes-Oxley Act of 2002	Not applicable; filed herewith		
31.2	Certification of the Chief Financial Officer of Endo pursuant to Section 302 of the Sarbanes-Oxley Act of 2002	Not applicable; filed herewith		
32.1	Certification of the President and Chief Executive Officer of Endo pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	Not applicable; furnished herewith		
32.2	Certification of the Chief Financial Officer of Endo pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	Not applicable; furnished herewith		
101.INS	XBRL Instance Document - the instance document does not appear in the interactive data file because its XBRL tags are embedded within the inline XBRL document.	Not applicable; submitted herewith		
101.SCH	XBRL Taxonomy Extension Schema Document	Not applicable; submitted herewith		
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document	Not applicable; submitted herewith		
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document	Not applicable; submitted herewith		
101.LAB	XBRL Taxonomy Extension Label Linkbase Document	Not applicable; submitted herewith		
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document	Not applicable; submitted herewith		

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

ENDO INTERNATIONAL PLC

(Registrant)

/s/ PAUL V. CAMPANELLI

Name: **Paul V. Campanelli**

Title: **President and Chief Executive Officer**

(Principal Executive Officer)

/s/ BLAISE COLEMAN

Name: **Blaise Coleman**

Title: **Executive Vice President, Chief Financial Officer**

(Principal Financial Officer)

Date: August 5, 2019

Exhibit 10.2

Endo
1400 Atwater Drive
Malvern, PA 19355
484.216.0000
endo.com

August 1, 2019

Blaise Coleman
1400 Atwater Drive
Malvern, Pennsylvania, 19355

Dear Blaise,

As we continue to execute on our corporate strategy, your leadership and expertise is essential to the Company. With the progress made to date, we are positioning ourselves for continued growth in Branded Pharmaceuticals and U.S. Branded Sterile Injectables, while continuing to stabilize our Retail Generics segment. Our capabilities in these core growth areas will be further enhanced by the expected emergence of the Company's Aesthetics segment as we transition to the crucial next phase of our multi-year turnaround plan.

Based upon the impact of your leadership across the enterprise and the criticality of your ongoing contributions to the planning and execution of Endo's ("Endo" or the "Company") transformation and turnaround plan, I am pleased to offer you a special compensation arrangement that demonstrates your importance to our Company. Specifically, you are eligible for the contribution retention bonus arrangement described in this Letter Agreement ("Letter Agreement").

Your total Contribution Retention Bonus amount is 1,250,000 USD (the "Contribution Bonus"), subject to applicable tax withholdings. This Contribution Bonus will be paid in installments within thirty (30) days following the end of the first, second, third and fourth Retention Period (each a "Retention Period" as defined below), provided you are employed on such dates by the Company or one of its affiliates. The Retention Periods and the associated installment amounts are as follows: (1) 312,500 USD following September 30, 2019; (2) 312,500 USD following December 31, 2019; (3) 312,500 USD following June 30, 2020; and (4) 312,500 USD following December 31, 2020. To qualify for the Contribution Bonus payments, you must maintain strong work performance and remain actively employed with Endo or one of its affiliates through the applicable Retention Periods.

Payment of the Contribution Bonus will be accelerated if your employment is terminated by Endo without cause (no misconduct or rule violation; *i.e.*, restructuring, reorganization or RIF) before the end of any applicable Retention Period and will be paid within 30 days of your termination date. Any unpaid Contribution Bonus amounts will be forfeited if you are terminated for cause (*i.e.*, misconduct, violation of rule or policy, etc.) or if you resign before the end of a Retention Period.

The Contribution Bonus will not become part of your remuneration, salary, or compensation (other than for tax purposes) for purposes of the calculation of any severance, notice or redundancy pay, or any other amount that you may be or become entitled to in relation to your employment or the termination of your employment. Nor is the Contribution Bonus an acquired right, since it is part of a global employee retention program implemented by the Company. This Contribution Bonus is a one-time retention award and will not create any legal claim for you in respect to its cause or amount, either for the past or for the future.

This Letter Agreement does not change the at-will employment relationship between you and Endo or alter any other terms and conditions of your employment. You or Endo may terminate your employment at any time, for any reason, with or without Cause. To the extent permitted by applicable law, any controversy or claim arising out of or relating to this Letter Agreement, or a breach thereof, including, but not limited to, any claims arising out of federal, state, or local laws, rules, or regulations, shall be exclusively settled by an arbitration proceeding conducted through Judicial Arbitration & Mediation Services ("JAMS"). This means that the Company and you are waiving your right to a have jury or judge adjudicate such claims or controversies, and that such claims or controversies will be exclusively decided by a single arbitrator. The arbitration will be conducted in accordance with the then-current JAMS Employment Arbitration Rules & Procedures (and no other JAMS rules). The decision of the arbitrator shall be final and binding. Judgment on the award rendered by the arbitrator(s) may be entered in any court having jurisdiction. You and the Company shall each bear your and its own legal expenses, except where otherwise required by law. The arbitration shall take place in Chester County, Pennsylvania, and no dispute under this Letter Agreement shall be adjudicated in any other venue or forum. This Letter Agreement shall be governed by the laws of the State of Pennsylvania, and it may not be modified in the absence of a written document signed by the parties.

Thank you for your ongoing contributions and commitment to our Company as we execute our strategic vision and operating plans at the highest performance level in support of our customers and patients. Please indicate your acceptance by signing and returning one copy of this Letter Agreement to Vito Romano by August 9, 2019.

Sincerely,

/S/ PAUL V. CAMPANELLI

Paul V. Campanelli
President & Chief Executive Officer

Signed and agreed by:

/S/ BLAISE COLEMAN	August 1, 2019
Blaise Coleman	Date

Exhibit 10.3

Endo
1400 Atwater Drive
Malvern, PA 19355
484.216.0000
endo.com

August 1, 2019

Terrance Coughlin
6 Ram Ridge Road
Chestnut Ridge, New York, 10977

Dear Terry,

As we continue to execute on our corporate strategy, your leadership and expertise is essential to the Company. With the progress made to date, we are positioning ourselves for continued growth in Branded Pharmaceuticals and U.S. Branded Sterile Injectables, while continuing to stabilize our Retail Generics segment. Our capabilities in these core growth areas will be further enhanced by the expected emergence of the Company's Aesthetics segment as we transition to the crucial next phase of our multi-year turnaround plan.

Based upon the impact of your leadership across the enterprise and the criticality of your ongoing contributions to the planning and execution of Endo's ("Endo" or the "Company") transformation and turnaround plan, I am pleased to offer you a special compensation arrangement that demonstrates your importance to our Company. Specifically, you are eligible for the contribution retention bonus arrangement described in this Letter Agreement ("Letter Agreement").

Your total Contribution Retention Bonus amount is 1,250,000 USD (the "Contribution Bonus"), subject to applicable tax withholdings. This Contribution Bonus will be paid in installments within thirty (30) days following the end of the first, second, third and fourth Retention Period (each a "Retention Period" as defined below), provided you are employed on such dates by the Company or one of its affiliates. The Retention Periods and the associated installment amounts are as follows: (1) 312,500 USD following September 30, 2019; (2) 312,500 USD following December 31, 2019; (3) 312,500 USD following June 30, 2020; and (4) 312,500 USD following December 31, 2020. To qualify for the Contribution Bonus payments, you must maintain strong work performance and remain actively employed with Par or one of its affiliates through the applicable Retention Periods.

Payment of the Contribution Bonus will be accelerated if your employment is terminated by Par without cause (no misconduct or rule violation; *i.e.*, restructuring, reorganization or RIF) before the end of any applicable Retention Period and will be paid within 30 days of your termination date. Any unpaid Contribution Bonus amounts will be forfeited if you are terminated for cause (*i.e.*, misconduct, violation of rule or policy, etc.) or if you resign before the end of a Retention Period.

The Contribution Bonus will not become part of your remuneration, salary, or compensation (other than for tax purposes) for purposes of the calculation of any severance, notice or redundancy pay, or any other amount that you may be or become entitled to in relation to your employment or the termination of your employment. Nor is the Contribution Bonus an acquired right, since it is part of a global employee retention program implemented by the Company. This Contribution Bonus is a one-time retention award and will not create any legal claim for you in respect to its cause or amount, either for the past or for the future.

This Letter Agreement does not change the at-will employment relationship between you and Par or alter any other terms and conditions of your employment. You or Par may terminate your employment at any time, for any reason, with or without Cause. To the extent permitted by applicable law, any controversy or claim arising out of or relating to this Letter Agreement, or a breach thereof, including, but not limited to, any claims arising out of federal, state, or local laws, rules, or regulations, shall be exclusively settled by an arbitration proceeding conducted through Judicial Arbitration & Mediation Services ("JAMS"). This means that the Company and you are waiving your right to a have jury or judge adjudicate such claims or controversies, and that such claims or controversies will be exclusively decided by a single arbitrator. The arbitration will be conducted in accordance with the then-current JAMS Employment Arbitration Rules & Procedures (and no other JAMS rules). The decision of the arbitrator shall be final and binding. Judgment on the award rendered by the arbitrator(s) may be entered in any court having jurisdiction. You and the Company shall each bear your and its own legal expenses, except where otherwise required by law. The arbitration shall take place in Rockland County, New York, and no dispute under this Letter Agreement shall be adjudicated in any other venue or forum. This Letter Agreement shall be governed by the laws of the State of New York, and it may not be modified in the absence of a written document signed by the parties. For employees residing and primarily working in California, this Agreement shall be governed by the laws of the State of California, and arbitration shall take place within 25 miles of Irvine, California.

Thank you for your ongoing contributions and commitment to our Company as we execute our strategic vision and operating plans at the highest performance level in support of our customers and patients. Please indicate your acceptance by signing and returning one copy of this Letter Agreement to Vito Romano by August 9, 2019.

Sincerely,

/S/ PAUL V. CAMPANELLI

Paul V. Campanelli
President & Chief Executive Officer

Signed and agreed by:

/S/ TERRANCE COUGHLIN	August 1, 2019
Terrance Coughlin	Date

Exhibit 10.4

Endo
1400 Atwater Drive
Malvern, PA 19355
484.216.0000
endo.com

August 1, 2019

Matthew Maletta
1400 Atwater Drive
Malvern, Pennsylvania, 19355

Dear Matt,

As we continue to execute on our corporate strategy, your leadership and expertise is essential to the Company. With the progress made to date, we are positioning ourselves for continued growth in Branded Pharmaceuticals and U.S. Branded Sterile Injectables, while continuing to stabilize our Retail Generics segment. Our capabilities in these core growth areas will be further enhanced by the expected emergence of the Company's Aesthetics segment as we transition to the crucial next phase of our multi-year turnaround plan.

Based upon the impact of your leadership across the enterprise and the criticality of your ongoing contributions to the planning and execution of Endo's ("Endo" or the "Company") transformation and turnaround plan, I am pleased to offer you a special compensation arrangement that demonstrates your importance to our Company. Specifically, you are eligible for the contribution retention bonus arrangement described in this Letter Agreement ("Letter Agreement").

Your total Contribution Retention Bonus amount is 1,250,000 USD (the "Contribution Bonus"), subject to applicable tax withholdings. This Contribution Bonus will be paid in installments within thirty (30) days following the end of the first, second, third and fourth Retention Period (each a "Retention Period" as defined below), provided you are employed on such dates by the Company or one of its affiliates. The Retention Periods and the associated installment amounts are as follows: (1) 312,500 USD following September 30, 2019; (2) 312,500 USD following December 31, 2019; (3) 312,500 USD following June 30, 2020; and (4) 312,500 USD following December 31, 2020. To qualify for the Contribution Bonus payments, you must maintain strong work performance and remain actively employed with Endo or one of its affiliates through the applicable Retention Periods.

Payment of the Contribution Bonus will be accelerated if your employment is terminated by Endo without cause (no misconduct or rule violation; *i.e.*, restructuring, reorganization or RIF) before the end of any applicable Retention Period and will be paid within 30 days of your termination date. Any unpaid Contribution Bonus amounts will be forfeited if you are terminated for cause (*i.e.*, misconduct, violation of rule or policy, etc.) or if you resign before the end of a Retention Period.

The Contribution Bonus will not become part of your remuneration, salary, or compensation (other than for tax purposes) for purposes of the calculation of any severance, notice or redundancy pay, or any other amount that you may be or become entitled to in relation to your employment or the termination of your employment. Nor is the Contribution Bonus an acquired right, since it is part of a global employee retention program implemented by the Company. This Contribution Bonus is a one-time retention award and will not create any legal claim for you in respect to its cause or amount, either for the past or for the future.

This Letter Agreement does not change the at-will employment relationship between you and Endo or alter any other terms and conditions of your employment. You or Endo may terminate your employment at any time, for any reason, with or without Cause. To the extent permitted by applicable law, any controversy or claim arising out of or relating to this Letter Agreement, or a breach thereof, including, but not limited to, any claims arising out of federal, state, or local laws, rules, or regulations, shall be exclusively settled by an arbitration proceeding conducted through Judicial Arbitration & Mediation Services ("JAMS"). This means that the Company and you are waiving your right to a have jury or judge adjudicate such claims or controversies, and that such claims or controversies will be exclusively decided by a single arbitrator. The arbitration will be conducted in accordance with the then-current JAMS Employment Arbitration Rules & Procedures (and no other JAMS rules). The decision of the arbitrator shall be final and binding. Judgment on the award rendered by the arbitrator(s) may be entered in any court having jurisdiction. You and the Company shall each bear your and its own legal expenses, except where otherwise required by law. The arbitration shall take place in Chester County, Pennsylvania, and no dispute under this Letter Agreement shall be adjudicated in any other venue or forum. This Letter Agreement shall be governed by the laws of the State of Pennsylvania, and it may not be modified in the absence of a written document signed by the parties.

Thank you for your ongoing contributions and commitment to our Company as we execute our strategic vision and operating plans at the highest performance level in support of our customers and patients. Please indicate your acceptance by signing and returning one copy of this Letter Agreement to Vito Romano by August 9, 2019.

Sincerely,

/S/ PAUL V. CAMPANELLI

Paul V. Campanelli
President & Chief Executive Officer

Signed and agreed by:

/S/ MATTHEW MALETTA	August 1, 2019
Matthew Maletta	Date

Exhibit 31.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO SECTION 302 OF
THE SARBANES-OXLEY ACT OF 2002

I, Paul V. Campanelli, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Endo International plc;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's Board of Directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/S/ PAUL V. CAMPANELLI

Paul V. Campanelli

President and Chief Executive Officer
(Principal Executive Officer)

Date: August 5, 2019

Exhibit 31.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO SECTION 302 OF
THE SARBANES-OXLEY ACT OF 2002

I, Blaise Coleman, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Endo International plc;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's Board of Directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/S/ BLAISE COLEMAN

Blaise Coleman

Executive Vice President, Chief Financial Officer
(Principal Financial Officer)

Date: August 5, 2019

Exhibit 32.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

I, Paul V. Campanelli, as President and Chief Executive Officer of Endo International plc (the Company), hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Quarterly Report on Form 10-Q of the Company for the quarterly period ended June 30, 2019 (the Report) fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m); and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/S/ PAUL V. CAMPANELLI

Name: Paul V. Campanelli

Title: President and Chief Executive Officer
(Principal Executive Officer)

Date: August 5, 2019

A signed original of this written statement required by Section 906 has been provided to, and will be retained by, Endo International plc and furnished to the Securities and Exchange Commission or its staff upon request.

Exhibit 32.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

I, Blaise Coleman, as Chief Financial Officer of Endo International plc (the Company), hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Quarterly Report on Form 10-Q of the Company for the quarterly period ended June 30, 2019 (the Report) fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m); and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/S/ BLAISE COLEMAN

Name: Blaise Coleman

Title: Executive Vice President, Chief Financial Officer
(Principal Financial Officer)

Date: August 5, 2019

A signed original of this written statement required by Section 906 has been provided to, and will be retained by, Endo International plc and furnished to the Securities and Exchange Commission or its staff upon request.