

Half-yearly Report



Half-yearly Report

August 4, 2017 - Shire plc (LSE: SHP, NASDAQ: SHPG), ("Shire" / the "Group") in accordance with the Financial Conduct Authority's Disclosure Guidance and Transparency Rules, is publishing its Half-yearly Report for the six months ended June 30, 2017.

On August 3, 2017, the Group announced its results for the same period.

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NOTES TO EDITORS

About Shire

Shire is the leading global biotechnology company focused on serving people with rare diseases. We strive to develop best-in-class products, many of which are available in more than 100 countries, across core therapeutic areas including Hematology, Immunology, Neuroscience, Ophthalmics, Lysosomal Storage Disorders, Gastrointestinal / Internal Medicine / Endocrine and Hereditary Angioedema; and a growing franchise in Oncology.

Our employees come to work every day with a shared mission: to develop and deliver breakthrough therapies for the hundreds of millions of people in the world affected by rare diseases and other high-need conditions, and who lack effective therapies to live their lives to the fullest.

www.shire.com

Shire plc

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THE “SAFE HARBOR” STATEMENT UNDER THE PRIVATE SECURITIES LITIGATION REFORM ACT OF 1995

Statements included herein that are not historical facts, including without limitation statements concerning future strategy, plans, objectives, expectations and intentions, the anticipated timing of clinical trials and approvals for, and the commercial potential of, inline or pipeline products, are forward-looking statements. Such forward-looking statements involve a number of risks and uncertainties and are subject to change at any time. In the event such risks or uncertainties materialize, Shire’s results could be materially adversely affected. The risks and uncertainties include, but are not limited to, the following:

- Shire’s products may not be a commercial success;
- increased pricing pressures and limits on patient access as a result of governmental regulations and market developments may affect Shire’s future revenues, financial condition and results of operations;
- Shire conducts its own manufacturing operations for certain of its products and is reliant on third party contract manufacturers to manufacture other products and to provide goods and services. Some of Shire’s products or ingredients are only available from a single approved source for manufacture. Any disruption to the supply chain for any of Shire’s products may result in Shire being unable to continue marketing or developing a product or may result in Shire being unable to do so on a commercially viable basis for some period of time;
- the manufacture of Shire’s products is subject to extensive oversight by various regulatory agencies. Regulatory approvals or interventions associated with changes to manufacturing sites, ingredients or manufacturing processes could lead to, among other things, significant delays, an increase in operating costs, lost product sales, an interruption of research activities or the delay of new product launches;
- certain of Shire’s therapies involve lengthy and complex processes, which may prevent Shire from timely responding to market forces and effectively managing its production capacity;
- Shire has a portfolio of products in various stages of research and development. The successful development of these products is highly uncertain and requires significant expenditures and time, and there is no guarantee that these products will receive regulatory approval;
- the actions of certain customers could affect Shire’s ability to sell or market products profitably. Fluctuations in buying or distribution patterns by such customers can adversely affect Shire’s revenues, financial conditions or results of operations;
- Shire’s products and product candidates face substantial competition in the product markets in which it operates, including competition from generics;
- adverse outcomes in legal matters, tax audits and other disputes, including Shire’s ability to enforce and defend patents and other intellectual property rights required for its business, could have a material adverse effect on the Group’s revenues, financial condition or results of operations;
- inability to successfully compete for highly qualified personnel from other companies and organizations;
- failure to achieve the strategic objectives, including expected operating efficiencies, cost savings, revenue enhancements, synergies or other benefits at the time anticipated or at all with respect to Shire’s acquisitions, including of NPS Pharmaceuticals Inc. (“NPS”), Dyax Corp. (“Dyax”) or Baxalta Incorporated (“Baxalta”), may adversely affect Shire’s financial condition and results of operations;
- Shire’s growth strategy depends in part upon its ability to expand its product portfolio through external collaborations, which, if unsuccessful, may adversely affect the development and sale of its products;
- a slowdown of global economic growth, or economic instability of countries in which Shire does business, as well as changes in foreign currency exchange rates and interest rates, that adversely impact the availability and cost of credit and customer purchasing and payment patterns, including the collectability of customer accounts receivable;
- failure of a marketed product to work effectively or if such a product is the cause of adverse side effects could result in damage to Shire’s reputation, the withdrawal of the product and legal action against Shire;

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- investigations or enforcement action by regulatory authorities or law enforcement agencies relating to Shire's activities in the highly regulated markets in which it operates may result in significant legal costs and the payment of substantial compensation or fines;
- Shire is dependent on information technology and its systems and infrastructure face certain risks, including from service disruptions, the loss of sensitive or confidential information, cyber-attacks and other security breaches or data leakages that could have a material adverse effect on Shire's revenues, financial condition or results of operations;
- Shire incurred substantial additional indebtedness to finance the Baxalta acquisition, which has increased its borrowing costs and may decrease its business flexibility; and

a further list and description of risks, uncertainties and other matters can be found in Shire's most recent Annual Report on Form 10-K and in Shire's subsequent Quarterly Reports on Form 10-Q, in each case including those risks outlined in "ITEM 1A: Risk Factors", and in subsequent reports on Form 8-K and other Securities and Exchange Commission filings, all of which are available on Shire's website.

All forward-looking statements attributable to the Group or any person acting on its behalf are expressly qualified in their entirety by this cautionary statement. Readers are cautioned not to place undue reliance on these forward-looking statements that speak only as of the date hereof. Except to the extent otherwise required by applicable law, the Group does not undertake any obligation to update or revise forward-looking statements, whether as a result of new information, future events or otherwise.

Trademarks

The Group owns or has rights to trademarks, service marks or trade names that are used in connection with the operation of its business. In addition, its names, logos and website names and addresses are owned by the Group or licensed by the Group. The Group also owns or has the rights to copyrights that protect the content of its solutions. Solely for convenience, the trademarks, service marks, trade names and copyrights referred to in this Quarterly Report on Form 10-Q are listed without the ©, ® and ™ symbols, but the Group will assert, to the fullest extent under applicable law, its rights or the rights of the applicable licensors to these trademarks, service marks, trade names and copyrights.

This Half-yearly Report may include trademarks, service marks or trade names of other companies. The Group's use or display of other parties' trademarks, service marks, trade names or products is not intended to, and does not imply a relationship with, or endorsement or sponsorship of the Group by, the trademark, service mark or trade name.

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Chief Executive Officer's review

We are pleased to enclose our financial results for the six-month period ended June 30, 2017. This Half-yearly Report includes condensed consolidated financial statements prepared in accordance with generally accepted accounting principles in the United States of America ("U.S. GAAP").

Flemming Ornskov, M.D., M.P.H. Shire's Chief Executive Officer, commented:

"Shire delivered strong top-line growth and significantly advanced our pipeline during the first half of 2017. We saw significant contributions from our broad and diverse portfolio and further realized cost synergies from our integration with Baxalta, which continued ahead of schedule.

"Total reported product sales in the first half of 2017 were \$7.0 billion, up 77% against first half of 2016, primarily due to the inclusion of Baxalta product revenues. We also delivered product sales growth in Shire's legacy business versus first half of 2016: Genetic Diseases up 8% to \$1,401 million and Internal Medicine up 12% to \$903 million.

"We continued to drive the late-stage clinical pipeline, with milestones achieved in programs across our core therapeutic areas. Most recently, we announced positive topline data from our Phase 3 pivotal trial of SHP643 in Hereditary Angioedema, and anticipate submission of the BLA in late 2017 or early 2018. MYDAYIS, a once-daily treatment for patients with ADHD, received US FDA approval and will be launched in September. In addition, we were granted European Union (EU) Conditional Marketing Authorisation for NATPAR (Parathyroid Hormone) for the treatment of patients with chronic hypoparathyroidism, and received European Medicines Agency (EMA) validation of the VEYVONDI [von Willebrand factor (Recombinant)] Marketing Authorization Application for treatment of von Willebrand Disease (VWD).

"We are at an exciting inflection point, with both our rare disease and neuroscience businesses performing strongly and each having significant growth potential over the coming years. The strength and scale of our business provides us with the opportunity to further optimize our franchise portfolio - one of our key priorities communicated earlier this year. By year end, we expect to complete a formal evaluation of the full range of strategic options for the neuroscience franchise, including the potential for its independent public listing.

"As we enter the second half of 2017, we are focused on generating strong organic growth while continuing to deliver on our key priorities - launching more than 80 products globally by leveraging our expanded commercial platform, progressing our late-stage pipeline, integrating Baxalta, and paying down debt. We remain very confident about Shire's long-term prospects."

Flemming Ornskov, M.D., M.P.H.

Chief Executive Officer

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Business overview for the six months to June 30, 2017

The following discussion should be read in conjunction with the unaudited condensed consolidated financial statements and related notes appearing elsewhere in this Half-yearly Report.

Significant Events in the Six Months Ended June 30, 2017 and Recent Developments

Corporate Strategy

Shire to assess strategic options for its Neuroscience franchise

- As part of the Board's ongoing commitment to optimize Shire's portfolio and strategic focus, Shire is assessing strategic options for our Neuroscience franchise. These options may include the independent public listing of the Neuroscience franchise. Shire intends to complete this strategic review by year end.

Business Development

Shire entered into a licensing agreement for SHP659 (formerly known as P-321)

- On May 1, 2017, Shire announced it agreed to license the exclusive worldwide rights to P-321 from Parion Sciences. P-321 is a Phase 2 investigational epithelial sodium channel inhibitor for the potential treatment of dry eye disease in adults. Shire will develop, and if approved, commercialize this compound which would expand our leadership position in ophthalmics and provide another important treatment option for patients with dry eye disease.

Shire entered into a licensing agreement for Novimmune bi-specific antibody

- On July 18, 2017, Shire entered into a licensing agreement with Novimmune S.A. The license grants Shire exclusive worldwide rights to develop and commercialize a bi-specific antibody in pre-clinical development for the treatment of hemophilia A and hemophilia A patients with inhibitors.

Products

FIRAZYR for the treatment of Hereditary Angioedema ("HAE") in Japan

- On July 6, 2017, Shire submitted a Japanese New Drug Application to the Pharmaceutical and Medical Devices Agency in Japan for the treatment of HAE.

VEYVONDI for the treatment of adults affected by Von Willebrand Disease ("VWD")

- On June 22, 2017, Shire announced that the European Medicines Agency ("EMA") validated the Marketing Authorization Application for VEYVONDI to prevent and treat bleeding episodes and peri-operative bleeding in adults (age 18 and older) diagnosed with VWD.

MYDAYIS for the treatment of attention deficit hyperactivity disorder ("ADHD")

- On June 20, 2017, Shire announced that the U.S. Food and Drug Administration ("FDA") approved MYDAYIS (mixed salts of a single-entity amphetamine product), a once-daily treatment comprised of three different types of drug-releasing beads for patients aged 13 years and older with ADHD.

NATPAR for the treatment of chronic hypoparathyroidism

- On April 26, 2017, Shire announced the European Commission (EC) granted Conditional Marketing Authorization for NATPAR (rhPTH[1-84]), the first recombinant human protein with the full length 84-aminoacid sequence of endogenous parathyroid hormone (PTH), as an adjunctive treatment for adult patients with chronic hypoparathyroidism who cannot be adequately controlled with standard therapy alone.

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VYVANSE for the treatment of ADHD and Binge Eating Disorder ("BED")

- On April 18, 2017, Shire announced that VYVANSE (lisdexamfetamine dimesylate) CII is now available in the United States in a new chewable tablet formulation, following FDA approval in January 2017.

INTUNIV for the treatment of ADHD in Japan

- On March 30, 2017, Shire's partner in Japan, Shionogi & Co., Ltd, received approval from the Japanese Ministry of Health, Labor and Welfare to manufacture and market INTUNIV for ADHD in Japan.
- On May 29, 2017, Shire's partner in Japan, Shionogi & Co., Ltd, launched INTUNIV for the treatment of ADHD in children and adolescents from six to 17 years old.

CINRYZE for the treatment of HAE

- On March 16, 2017, the EC approved a label extension for CINRYZE (C1 inhibitor [human]), broadening its use to children with HAE. CINRYZE is now the first and only treatment indicated for routine prevention of angioedema attacks in children aged six years or older who have severe and recurrent attacks of HAE and cannot tolerate or are not adequately protected by oral preventative treatments, or who are inadequately managed with repeated acute treatment. CINRYZE is also now approved for acute treatment and pre-procedure prevention of angioedema attacks in children aged two years or older with HAE.

Pipeline

SHP654 for the treatment of hemophilia A

- On July 6, 2017, Shire announced the submission of an Investigational New Drug ("IND") application to the FDA for SHP654, an investigational factor VIII (FVIII) gene therapy for the treatment of hemophilia A.

SHP643 for the treatment of HAE

- On May 18, 2017, Shire announced positive topline Phase 3 results for the HELP Study, which evaluated the efficacy and safety of subcutaneously administered lanadelumab in patients 12 years of age or older with HAE. The study met its primary endpoint and all secondary endpoints.

SHP647 for the treatment of ulcerative colitis

- On May 17, 2017, Shire announced the publication of positive Phase 2 results for the TURANDOT Study. The study met its primary endpoint, demonstrating significantly greater remission rates in patients receiving the anti-MAdCAM antibody. Shire continues to work towards the initiation of a pivotal Phase 3 trial for SHP647 in the second half of 2017.

SHP680 for the treatment of multiple neurological conditions

- Shire is advancing clinical development of SHP680 targeting indications for multiple neurological conditions with high unmet need. SHP680 is a new chemical entity prodrug of d-amphetamine, which has previously been studied in Phase 1 clinical trials, demonstrating a unique PK profile. It belongs to a class of molecules with an established and well understood safety profile.

SHP655 for the treatment of congenital thrombotic thrombocytopenic purpura (cTTP)

- On March 22, 2017, the FDA granted Fast Track Designation for recombinant ADAMTS13 (SHP655) for the treatment of acute episodes of cTTP in patients with a congenital deficiency of the von Willebrand factorcleaving protease ADAMTS13.

SHP640 for the treatment of bacterial and adenoviral conjunctivitis

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- The global Phase 3 clinical development program will have clinical sites in over 20 countries. Patient recruitment has started and the first patient visit occurred in March 2017. The topline data is expected in Q2 2018.

SHP639 for the treatment of Glaucoma

- In March 2017, Shire submitted an (IND) application for SHP639. The IND is for the initiation of first in human clinical studies of SHP639 for the reduction of elevated intraocular pressure in patients with primary open-angle glaucoma or ocular hypertension.

Board Changes

In accordance with Shire's normal succession planning, the Group announced that the following Non-Executive Directors will retire from the Board with effect from the conclusion of the 2018 Annual General Meeting ("AGM"):

- William M. Burns, Senior Independent Director
- David Ginsburg, Chairman of the Science & Technology Committee
- Anne Minto, Chairman of the Remuneration Committee

Al Stroucken, Non-Executive Director, assumed the position of Chairman of the Remuneration Committee effective August 3, 2017. Anne Minto will continue to serve as a member of the Remuneration Committee to enable a period of transition until her retirement from the Board. Anne will fully support Al in the shareholder consultation process ahead of the publication of the new Directors' Remuneration Policy that will be put forward for shareholder approval at the 2018 AGM. The Board, supported by the Nomination & Governance Committee, will continue to evaluate Board and committee membership, including succession plans for the roles of Senior Independent Director and Chairman of the Science & Technology Committee, and will announce further changes once finalized.

Dividend

In respect of the six months ended June 30, 2017, the Board resolved to pay an interim dividend of 0.0509 U.S. dollars per ordinary share (2016: 0.0463 U.S. dollars per ordinary share).

Dividend payments will be made in Pounds sterling to holders of ordinary shares and in U.S. dollars to holders of ADSs. A dividend of 0.0385 ⁽¹⁾ Pounds sterling per ordinary share (2016: 0.0351 Pounds sterling) and 0.1527 U.S. dollars per ADS (2016: 0.1389 U.S. dollars) will be paid on October 20, 2017, to shareholders on the register as of the close of business on September 8, 2017.

Holders of ordinary shares are notified that, in order to receive UK sourced dividends via Shire's Income Access Share arrangements ("IAS Arrangements"), they need to have submitted a valid IAS Arrangements election form to the Group's Registrar, Equiniti, by no later than 5pm (BST) on September 22, 2017. Holders of ordinary shares are advised that:

- any previous elections made using versions of the IAS Arrangements election form in use prior to February 16, 2016, and any elections deemed to have been made prior to April 28, 2016, are no longer valid; and
- if they do not elect, or have not elected using the newly formatted IAS Arrangements election forms published on or after February 16, 2016, to receive UK sourced dividends via Shire's IAS Arrangements, their dividends will be Irish sourced and therefore incur Irish dividend withholding tax, subject to applicable exemptions.

Internet links to the newly formatted IAS Arrangements election forms can be found at:

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<http://investors.shire.com/shareholder-information/shareholder-forms.aspx>

⁽¹⁾ Translated using a GBP:USD exchange rate of 1.3221.

Going Concern

As stated in Note 1 to the unaudited consolidated financial statements, the Directors have a reasonable expectation that the Group has adequate resources to continue in operational existence for the foreseeable future. Accordingly, the Directors consider it appropriate to adopt the going concern basis of accounting in preparing the Half-yearly Report.

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Results of Operations for the Three and Six Months Ended June 30, 2017 and 2016

Product sales

The following table provides an analysis of the Group's Product sales:

(In millions, except %)

Product sales:	Three months ended June 30,			Six months ended June 30,		
	2017	2016	Product sales growth	2017	2016	Product sales growth
HEMOPHILIA	\$ 743.9	\$ 275.6	N/M	\$ 1,394.3	\$ 275.6	N/M
INHIBITOR THERAPIES	220.7	74.0	N/M	441.2	74.0	N/M
Hematology total	964.6	349.6	N/M	1,835.5	349.6	N/M
CINRYZE	175.9	173.0	2 %	401.8	337.2	19 %
ELAPRASE	161.0	154.0	5 %	301.6	277.6	9 %
FIRAZYR	137.4	136.7	1 %	265.9	265.0	— %
REPLAGAL	122.1	118.4	3 %	231.8	221.6	5 %
VPRIV	87.9	88.0	— %	167.7	171.6	(2)%
KALBITOR	20.6	17.7	16 %	32.3	28.1	15 %
Genetic Diseases total	704.9	687.8	2 %	1,401.1	1,301.1	8 %
IMMUNOGLOBULIN THERAPIES	510.5	138.2	N/M	1,008.8	138.2	N/M
BIO THERAPEUTICS	172.2	51.3	N/M	350.1	51.3	N/M
Immunology total	682.7	189.5	N/M	1,358.9	189.5	N/M
VYVANSE	518.2	517.7	— %	1,081.9	1,026.9	5 %
ADDERALL XR	71.4	101.8	(30)%	136.3	200.6	(32)%
MYDAYIS	15.7	—	N/A	15.7	—	N/A
Other Neuroscience	30.1	35.7	(16)%	54.8	57.8	(5)%
Neuroscience total	635.4	655.2	(3)%	1,288.7	1,285.3	— %
LIALDA/MEZAVANT	207.8	193.7	7 %	382.9	361.7	6 %
PENTASA	83.3	72.9	14 %	152.4	136.9	11 %
GATTEX/REVESTIVE	75.3	44.5	69 %	144.3	96.2	50 %
NATPARA	34.5	19.9	73 %	64.2	35.5	81 %
Other Internal Medicine	83.4	88.7	(6)%	159.3	173.3	(8)%
Internal Medicine total	484.3	419.7	15 %	903.1	803.6	12 %
Oncology total	62.5	20.3	N/M	120.8	20.3	N/M
Ophthalmology total	57.4	—	N/A	96.0	—	N/A
Total Product sales	\$ 3,591.8	\$ 2,322.1	55 %	\$ 7,004.1	\$ 3,949.4	77 %

N/M: Baxalta sales have only been included in the consolidated results of the Group since the date of acquisition; therefore, Product sales growth as a percentage is not meaningful.

Hematology

Hematology was acquired with Baxalta in June 2016 and includes sales of recombinant and plasma-derived hemophilia products (primarily factor VIII and factor IX) and inhibitor therapies. Hematology product sales, totaling

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\$964.6 million and \$1,835.5 million, respectively, are included in Product sales for the three and six months ended June 30, 2017, representing 27% and 26% of Shire's reported Product sales, respectively.

Genetic Diseases

Genetic Diseases product sales for the three and six months ended June 30, 2017 increased by 2% and 8%, respectively, compared to the corresponding periods in 2016. Growth was primarily driven by the Group's lysosomal storage diseases portfolio and CINRYZE.

ELAPRASE product sales for the three and six months ended June 30, 2017 increased by 5% and 9%, respectively, while REPLAGAL sales increased by 3% and 5%, respectively, compared to the corresponding periods in 2016. Both products benefited from an increase in the number of patients on therapy.

CINRYZE product sales for the three and six months ended June 30, 2017 increased by 2% and 19%, respectively. The growth in the three months ended June 30, 2017 was primarily due to an increase in number of patients, partially offset by destocking during the second quarter of 2017. The growth in the six months ended June 30, 2017 was primarily due to an increase in number of patients and the impact of U.S. stocking in the first half of 2017.

Immunology

Immunology was acquired with Baxalta in June 2016 and includes product sales of antibody-replacement immunoglobulin and bio therapeutics therapies. Immunology product sales, totaling \$682.7 million and \$1,358.9 million, respectively, are included in Product sales for the three and six months ended June 30, 2017, representing 19% of Shire's reported Product sales, in each respective period.

Neuroscience

Neuroscience product sales for the three months ended June 30, 2017 decreased by 3% compared to the corresponding period in 2016, primarily driven by ADDERALL XR. Product sales for the six months ended June 30, 2017 increased less than 1% compared to the corresponding period in 2016.

ADDERALL XR sales decreased by 30% and 32%, respectively, during the three and six months ended June 30, 2017 compared to the corresponding periods in 2016, primarily due to additional generic competition since August 2016.

VYVANSE product sales increased by less than 1% and 5% for the three and six months ended June 30, 2017, respectively, compared with the corresponding periods in 2016. The three months ended June 30, 2017 growth was impacted by destocking in the second quarter of 2017 compared to stocking in the corresponding period in 2016. During the six months ended June 30, 2017, VYVANSE sales increased due to year-over-year prescription growth in the U.S., the benefit of a price increase taken since the first quarter of 2016 and growth in international markets, partially offset by destocking.

MYDAYIS, approved by the FDA on June 20, 2017, contributed \$15.7 million of product sales related to launch stocking.

Internal Medicine

Internal Medicine product sales increased by 15% and 12%, respectively, during the three and six months ended June 30, 2017, compared to the corresponding periods in 2016, with growth primarily driven by GATTEX/REVESTIVE and NATPARA.

GATTEX/REVESTIVE and NATPARA reported increased product sales of 69% and 73% during the three months ended June 30, 2017 and 50% and 81% during the six months ended June 30, 2017, respectively, primarily due to an increase in the numbers of patients on therapy.

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During the second quarter of 2017, a generic version of LIALDA was approved by the FDA; Shire expects generic competition to negatively impact future LIALDA product sales.

Oncology

Oncology was acquired with Baxalta in June 2016 and includes sales of ONCASPAR and ONIVYDE, the latter of which was approved in the EU on October 18, 2016. Oncology product sales, totaling reported sales of \$62.5 million and \$120.8 million respectively, are included in Product sales for the three and six months ended June 30, 2017, representing 2% Shire's reported Product sales, in each respective period.

Ophthalmology

Ophthalmology product sales relate to XIIDRA, which was made available to patients starting on August 29, 2016. XIIDRA contributed \$57.4 million and \$96.0 million of product sales during the three and six months ended June 30, 2017.

Royalties and other revenues

The following table provides an analysis of Shire's income from royalties and other revenues:

(In millions, except %)	Three months ended June 30,			Six months ended June 30,		
	2017	2016	Change %	2017	2016	Change %
SENSIPAR Royalties	\$ 46.4	\$ 35.6	30%	\$ 85.3	\$ 73.5	16 %
ADDERALL XR Royalties	13.4	5.2	158%	25.9	11.0	135 %
FOSRENOL Royalties	12.1	11.4	6%	20.7	20.6	- %
3TC and ZEFFIX Royalties	8.2	12.1	(32)%	22.7	27.1	(16)%
Other Royalties and Revenues	73.9	42.7	73%	159.4	56.8	181 %
Total Royalties and other revenues	<u>\$ 154.0</u>	<u>\$ 107.0</u>	<u>44%</u>	<u>\$ 314.0</u>	<u>\$ 189.0</u>	<u>66 %</u>

Royalties and other revenues increased 44% and 66%, respectively, during the three and six months ended June 30, 2017 compared to the corresponding periods in 2016, primarily due to the inclusion of contract manufacturing revenue acquired with Baxalta.

Cost of sales

Cost of sales as a percentage of Total revenues decreased to 30% for the three months ended June 30, 2017, compared to 32% for the corresponding period in 2016, primarily due to lower expense related to the unwind of inventory fair value adjustments. Cost of sales as a percentage of Total revenues increased to 33% for the six months ended June 30, 2017, compared to 25% in the corresponding period in 2016, primarily due to the impact of the unwind of inventory fair value adjustments and increased depreciation following the acquisition of Baxalta on June 3, 2016.

For the three and six months ended June 30, 2017, Cost of sales included depreciation of \$67.0 million and \$139.1 million, respectively (2016: \$22.4 million and \$30.7 million, respectively).

Research and development

In the three and six months ended June 30, 2017, Research and development expenses increased by \$247.6 million and \$409.8 million, or 84% and 80%, respectively, compared to the corresponding periods in 2016, primarily due to milestone and upfront payments associated with license arrangements and the inclusion of Baxalta costs.

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For the three and six months ended June 30, 2017, Research and development included depreciation of \$12.8 million and \$26.2 million, respectively (2016: \$5.8 million and \$11.7 million, respectively).

Selling, general and administrative

In the three and six months ended June 30, 2017, Selling, general and administrative expenses increased by \$223.8 million and \$637.8 million, or 33% and 55%, compared to the corresponding periods in 2016, primarily due to the inclusion of Baxalta related costs and increased XIIDRA marketing costs.

For the three and six months ended June 30, 2017, Selling, general and administrative expenses included depreciation of \$40.9 million and \$78.3 million, respectively (2016: \$19.7 million and \$39.8 million, respectively).

Amortization of acquired intangible assets

For the three and six months ended June 30, 2017, Shire recorded Amortization of acquired intangible assets of \$434.1 million and \$798.1 million, respectively, compared to \$213.0 million and \$347.6 million, respectively, in the corresponding periods in 2016. The increase is primarily related to amortization on the intangible assets acquired with the acquisition of Baxalta.

Integration and acquisition costs

In the three and six months ended June 30, 2017, Shire recorded Integration and acquisition costs of \$343.7 million and \$459.7 million, respectively, compared to \$363.0 million and \$454.1 million, respectively, in the corresponding periods in 2016.

In 2017, Integration and acquisition costs included a net charge of \$151.2 million, primarily relating to the change in fair value of contingent consideration for SHP643, which was acquired from Dyax in 2016. The Baxalta integration and acquisition costs include \$80.2 million and \$117.1 million, respectively, of employee severance and acceleration of stock compensation, \$50.4 million and \$85.6 million, respectively, of third-party professional fees and \$17.2 million and \$41.7 million, respectively, of expenses associated with facility consolidations for the three and six months ended June 30, 2017. The Group also recognized \$33.6 million of expenses during the three and six months ended June 30, 2017 related to asset impairments.

For the three and six months ended June 30, 2016, Integration and acquisition costs primarily consist of \$67.1 million and \$125.6 million, respectively, of acquisition costs including legal, investment banking and other transaction-related fees, \$254.5 million and \$265.5 million, respectively, of employee severance and acceleration of stock compensation, \$79.2 million and \$89.2 million, respectively, of third-party professional fees and \$56.5 million and \$45.1 million, respectively, of change in fair value of contingent consideration.

Interest expense

For the three and six months ended June 30, 2017, Shire incurred Interest expense of \$141.3 million and \$283.6 million, respectively, primarily due to higher interest expense incurred on borrowings used to fund the acquisitions of Dyax and Baxalta.

For the three and six months ended June 30, 2016, Shire incurred Interest expense of \$87.2 million and \$131.9 million, respectively, primarily related to the interest and amortization of financing fees incurred on borrowings to fund the acquisition of Dyax and the amortization of one-time upfront arrangement fees incurred on borrowings associated with the acquisition of Baxalta.

Half-yearly Report

Taxation

The effective tax rate on income from continuing operations for the three and six months ended June 30, 2017 was 9% and 5% (2016: -427% and 2%), respectively.

The effective tax rate for the three and six months ended June 30, 2017 and 2016 was driven by the combined impact of the relative quantum of profit before tax for the period by jurisdiction as well as acquisition and integration costs in higher tax territories.

Discontinued Operations

The loss from discontinued operations for the three months ended June 30, 2017 was \$1.2 million, net of taxes, and the gain for the six months ended June 30, 2017 was \$19.0 million, net of taxes. The loss during the three months ended June 30, 2017 was primarily related to the divested DERMAGRAFT business and the gain during the six months ended June 30, 2017 was primarily due to the return of funds previously held in escrow related to the acquisition of the DERMAGRAFT business.

The loss from discontinued operations for the three and six months ended June 30, 2016 was \$248.7 million and \$239.2 million, respectively, net of taxes, primarily related to the establishment of legal contingencies related to the divested DERMAGRAFT business.

Financial condition at June 30, 2017 and December 31, 2016

Cash and cash equivalents:

Cash and cash equivalents decreased by \$265.1 million to \$263.7 million at June 30, 2017 (December 31, 2016: \$528.8 million). The net decrease was primarily related to \$1,681.9 million of net cash provided by operating activities, which was partially offset by net repayments of debt (\$1,416.0 million), purchases of fixed assets (\$391.1 million), and payment of dividends (\$234.7 million).

Accounts receivable, net:

Accounts receivable, net increased by \$138.7 million to \$2,755.2 million at June 30, 2017 (December 31, 2016: \$2,616.5 million) due to higher revenue, in part related to our newly launched product, MYDAYIS.

Inventories

Inventories decreased by \$237.0 million to \$3,325.3 million at June 30, 2017 (December 31, 2016: \$3,562.3 million) primarily due to the amortization of the unwind of inventory fair value adjustments (\$625.4 million), offset by increases in inventory levels to support higher demand of immunology and hematology products and expected demand for our ophthalmology product.

Goodwill

Goodwill increased by \$1,593.9 million to \$19,482.1 million at June 30, 2017 (December 31, 2016: \$17,888.2 million), principally due to finalizing the purchase accounting related to the Baxalta acquisition.

Intangible assets, net

Intangible assets, net decreased by \$1,263.2 million to \$33,434.3 million at June 30, 2017 (December 31, 2016: \$34,697.5 million), principally due to finalizing the purchase accounting related to the Baxalta acquisition. As of June 30, 2017, we completed our purchase accounting. We had previously disclosed that the fair values of those assets were preliminary and subject to change pending the completion of our valuation work.

Half-yearly Report

Accounts payable and accrued expenses

Accounts payable and accrued expenses decreased by \$470.4 million to \$3,842.0 at June 30, 2017 (December 31, 2016: \$4,312.4 million) primarily related to the settlement of legal contingencies (approximately \$350 million) related to the divested Dermagraft business.

Short and long term borrowings and capital leases

Short and long term borrowings and capital leases decreased by a net of \$1,407.8 million to \$21,560.0 million at June 30, 2017 (December 31, 2016: \$22,967.8 million) primarily related to the repayments of senior notes and other long term debt (\$1,701.0 million), partially offset by an increase in short term borrowings under the revolving credit facility (\$285.0 million).

Non-current deferred tax liabilities

Non-current deferred tax liabilities decreased by \$534.7 million to \$7,788.0 million at June 30 2017 (December 31, 2016: \$8,322.7 million) primarily due to adjustments for the deferred tax liabilities arising on intangible assets acquired with Baxalta. As of June 30, 2017 we completed our purchase accounting related to the Baxalta transaction.

Other non-current liabilities

Other non-current liabilities increased by \$224.6 million to \$2,346.2 million at June 30, 2017 (December 31, 2016: \$2,121.6 million) principally due the increase in the fair value of contingent consideration payable primarily associated with the SHP643 (lanadelumab) IPR&D intangible asset acquired with the Dyax transaction, an increase in income tax payable as well as an increase in pension liability.

Liquidity and Capital Resources

General

The Group's funding requirements depend on a number of factors, including the timing and extent of its development programs; corporate, business and product acquisitions; the level of resources required for the expansion of certain manufacturing and marketing capabilities as the product base expands; increases in accounts receivable and inventory which may arise with any increase in product sales; technological developments; the timing and cost of obtaining required regulatory approvals for new products; the timing and quantum of milestone payments on business combinations, in-licenses and collaborative projects; the timing and quantum of tax and dividend payments; the timing and quantum of purchases by the Employee Benefit Trust of Shire shares in the market to satisfy awards granted under Shire's employee share plans and the amount of cash generated from sales of Shire's products and royalty receipts.

An important part of Shire's business strategy is to protect its products and technologies through the use of patents, proprietary technologies and trademarks, to the extent available. The Group intends to defend its intellectual property and as a result may need cash for funding the cost of litigation.

The Group finances its activities through cash generated from operating activities, credit facilities, private and public offerings of equity and debt securities and the proceeds of asset or investment disposals.

Shire's Consolidated Balance Sheets include \$263.7 million of Cash and cash equivalents as of June 30, 2017.

Shire has a revolving credit facility ("RCF") of \$2,100.0 million, which matures in 2021, \$735.0 million of which was utilized as of June 30, 2017. The RCF incorporates a \$250.0 million U.S. dollar and Euro swingline facility operating as a sub-limit thereof.

Half-yearly Report

In connection with the acquisition of Dyax, Shire entered into a \$5.6 billion amortizing term loan facility in November 2015. As of June 30, 2017, \$3.3 billion of this term loan facility was outstanding. The facility matures in different tranches through November 2018 and \$1.7 billion is due within the next twelve months.

In connection with the acquisition of Baxalta, Shire assumed \$5.0 billion of unsecured senior notes previously issued by Baxalta, of which \$750.0 million is due within the next twelve months and issued \$12.1 billion of unsecured senior notes in September 2016, of which none are due for repayment in the next twelve months.

The details of these financing arrangements are included in Note 13, Borrowings and Capital Leases, to these Unaudited Consolidated Financial Statements.

In addition, Shire also has access to certain short-term uncommitted lines of credit which are available to utilize from time to time to provide short-term cash management flexibility. As of June 30, 2017, these lines of credit were not utilized.

The Group may also engage in financing activities from time to time, including accessing the debt or equity capital markets.

Financing

Shire anticipates that its operating cash flow together with available cash, cash equivalents, and the RCF will be sufficient to meet its anticipated future operating expenses, capital expenditures, tax and interest payments, lease obligations, repayment of borrowings and milestone payments as they become due over the next twelve months.

If the Group decides to acquire other businesses, it expects to fund these acquisitions from cash resources, the RCF and through new borrowings (including issuances of debt securities) or the issuance of new equity, if necessary.

Sources and uses of cash

The following table provides an analysis of the Group's gross and net debt position (excluding restricted cash), as of June 30, 2017 and December 31, 2016:

(In millions)	June 30, 2017	December 31, 2016
Cash and cash equivalents	\$ 263.7	\$ 528.8
Long term borrowings (excluding capital leases)	(18,011.3)	(19,552.6)
Short term borrowings (excluding capital leases)	(3,198.1)	(3,061.6)
Capital leases	(350.6)	(353.6)
Total debt	\$ (21,560.0)	\$ (22,967.8)
Net debt	\$ (21,296.3)	\$ (22,439.0)

- Net debt is a Non-GAAP measure. Net debt represents U.S. GAAP Cash and cash equivalents less U.S. GAAP short and long term borrowings and capital leases (see above). The Group believes that Net debt is a useful measure as it indicates the level of borrowings after taking account of the Cash and cash equivalents that could be utilized to pay down the outstanding borrowings.
- Substantially all of the Group's Cash and cash equivalents are held by foreign subsidiaries (i.e., those subsidiaries incorporated outside of Jersey, Channel Islands, the jurisdiction of incorporation of Shire plc, Shire's holding company). The amount of Cash and cash equivalents held by foreign subsidiaries has not had, and is not expected to have, a material impact on the Group's liquidity and capital resources.

Half-yearly Report

Cash flow activity

Net cash provided by operating activities increased by \$701.5 million, or 72%, to \$1,681.9 million (2016: \$980.4 million) during the six months ended June 30, 2017, primarily due to increased cash receipts from higher sales, partially offset by a payment of \$351.6 million associated with the settlement of the DERMAGRAFT litigation.

Net cash used in investing activities was \$355.9 million during the six months ended June 30, 2017, principally relating to cash paid for purchases of PP&E and long term investments.

Net cash used in financing activities was \$1,595.2 million during the six months ended June 30, 2017. This includes \$1,700.0 million of scheduled and advance repayments under the November 2015 Facility B and a dividend payment of \$234.7, which was partially offset by \$285.0 million of increased borrowings under the RCF and \$79.5 million of cash proceeds from the exercise of options.

Obligations and commitments

There were no material changes to the Group's contractual obligations previously disclosed in Review of our Business in Shire's Annual Report and Accounts for the year ended December 31, 2016.

Recent Accounting Pronouncements

A description of recently issued accounting standards is included under the heading "New Accounting Pronouncements" in Note 1, Summary of Significant Accounting Policies.

Principal risks and uncertainties

The Group's risk management strategy is to identify, assess and mitigate any significant risks that it faces. Despite this, it should be noted that no risk management strategy can provide absolute assurance against loss.

The Group's processes for managing these risks are consistent with those outlined in Shire's Annual Report and Accounts for the year ended December 31, 2016, which is available on the Group's website, www.shire.com.

The principal risks and uncertainties affecting the Group for the remaining six months of 2017 are those described under the headings below. It is not anticipated that the nature of the principal risks and uncertainties disclosed in full in Shire's Annual Report and Accounts for the year ended December 31, 2016, will change in respect of the second half of 2017. The Group believes that these risk factors apply equally and therefore all should be carefully considered before any investment is made in Shire.

Shire's combination with Baxalta closed on June 3, 2016. All references to the "Group," "Shire," "we," "us," or "our" used herein refer to Shire plc and its subsidiaries, including Baxalta and its subsidiaries.

In summary, these risks and uncertainties are as follows:

Risks Related to Our Business

- The Group's products may not be a commercial success.
- Increased pricing pressures and limits on patient access as a result of governmental regulations and market developments may affect the Group's future revenues, financial condition and results of operations.
- The Group depends on third-parties to supply certain inputs and services critical to its operations including certain inputs, services and ingredients critical to its manufacturing processes.
- Any disruption to the supply chain for any of the Group's products, or any difficulties or delays in the manufacturing, distribution and sale of its products may result in the Group being unable to continue marketing or developing a product, or may result in the Group being unable to do so on a commercially viable basis for some period of time.
- The manufacture of the Group's products is subject to extensive oversight by various regulatory agencies. Regulatory approvals or interventions associated with changes to manufacturing sites, ingredients or manufacturing processes could lead to significant delays, an increase in operating costs, lost product sales, an interruption of research activities or the delay of new product launches.
- The nature of producing plasma-based therapies may prevent Shire from timely responding to market forces and effectively managing its production capacity.
- The Group has a portfolio of products in various stages of research and development. The successful development of these products is highly uncertain and requires significant expenditures and time, and there is no guarantee that these products will receive regulatory approval.
- The actions of certain customers could affect the Group's ability to sell or market products profitably. Fluctuations in buying or distribution patterns by such customers can adversely affect the Group's revenues, financial conditions or results of operations.
- Failure to comply with laws and regulations governing the sales and marketing of its products could materially impact Shire's revenues and profitability.
- The Group's products and product candidates face substantial competition in the product markets in which it operates.

Half-yearly Report

- The Group's patented products are subject to significant competition from generics.
- Adverse outcomes in legal matters and other disputes, including the Group's ability to enforce and defend patents and other intellectual property rights required for its business, could have a material adverse effect on the Group's revenues, financial condition or results of operations.
- The Group may fail to obtain, maintain, enforce or defend the intellectual property rights required to conduct its business.
- The Group faces intense competition for highly qualified personnel from other companies and organizations.
- Failure to successfully execute or attain strategic objectives from the Group's acquisitions and growth strategy may adversely affect the Group's financial condition and results of operations.
- Shire's growth strategy depends in part upon its ability to expand its product portfolio through external collaborations, which, if unsuccessful, may adversely affect the development and sale of its products.
- A slowdown of global economic growth, or economic instability of countries in which the Group does business, could have negative consequences for the Group's business and increase the risk of non-payment by the Group's customers.
- Changes in foreign currency exchange rates and interest rates could have a material adverse effect on Shire's operating results and liquidity.
- The Group is subject to evolving and complex tax laws, which may result in additional liabilities that may adversely affect the Group's financial condition or results of operations.
- If a marketed product fails to work effectively or causes adverse side effects, this could result in damage to the Group's reputation, the withdrawal of the product and legal action against the Group.
- The Group is dependent on information technology and its systems and infrastructure face certain risks, including from service disruptions, the loss of sensitive or confidential information, cyber-attacks and other security breaches or data leakages that could have a material adverse effect on the Group's revenues, financial condition or results of operations.
- Shire faces risks relating to the expected exit of the United Kingdom from the European Union.

Risks Related to the Combination with Baxalta Incorporated

- The Group may not successfully integrate the businesses of Shire and Baxalta.
- Shire has incurred significant additional indebtedness in connection with the acquisition, which has decreased the Group's business flexibility and increased its interest expense. All of the Group's debt obligations have priority over the Group's Ordinary Shares and ADSs with respect to payment in the event of a liquidation, dissolution or winding up.
- Uncertainties associated with the combination may cause a loss of employees and may otherwise affect the future business and operations of Shire and the combined Group.
- Baxalta only operated as an independent company from July 1, 2015 until the consummation of its merger with Shire on June 3, 2016, and Baxalta's historical financial information is not necessarily representative of the results that Baxalta would have achieved as a separate, publicly traded company, and may not be a reliable indicator of future results of Baxalta. Moreover, any pro forma financial information published by the Group is not necessarily representative of the results that the Group would have achieved, and may not be a reliable indicator of future results.

Half-yearly Report

- Baxter may not satisfy its obligations under various transaction agreements that have been executed as part of the separation or Shire may fail to have necessary systems and services in place when certain of the transaction agreements expire.
- The acquisition of Baxalta could result in significant liability to the Group if the combination causes the spin-off of Baxalta from Baxter or a Later Distribution to be taxable.
- In connection with the merger with Baxalta, the separation and the Later Distributions could result in significant liability to the Group due to Baxalta's spin-off from Baxter.
- Certain Baxalta agreements may contain change of control provisions that may have been triggered by the merger that, if acted upon or not waived, could cause the Group to lose the benefit of such agreement and incur liabilities or replacement costs, which could have a material adverse effect on the Group.
- New regulations issued by the U.S. Department of Treasury may impact the Group following the merger with Baxalta.

Half-yearly Report

Directors' responsibility statement

The Directors confirm that, to the best of their knowledge, the condensed consolidated set of financial statements has been prepared in accordance with U.S. GAAP and that the Half-yearly Report herein includes a fair review of the information required by DTR 4.2.7R and DTR 4.2.8R.

The Directors of Shire plc are listed in Shire's Annual Report and Accounts for the year ended December 31, 2016.

Details of all current Directors are available on Shire's website at www.shire.com

Approved by the Board of Directors and signed on its behalf by:

Flemming Ornskov, M.D., M.P.H.
Chief Executive Officer
August 3, 2017

Jeffrey Poulton
Chief Financial Officer
August 3, 2017

SHIRE PLC

CONSOLIDATED BALANCE SHEETS

(Unaudited, in millions, except par value of shares)

	June 30, 2017	December 31, 2016
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 263.7	\$ 528.8
Restricted cash	34.2	25.6
Accounts receivable, net	2,755.2	2,616.5
Inventories	3,325.3	3,562.3
Prepaid expenses and other current assets	778.5	806.3
Total current assets	7,156.9	7,539.5
Investments	197.0	191.6
Property, plant and equipment ("PP&E"), net	6,554.5	6,469.6
Goodwill	19,482.1	17,888.2
Intangible assets, net	33,434.3	34,697.5
Deferred tax asset	132.2	96.7
Other non-current assets	233.9	152.3
Total assets	<u>\$ 67,190.9</u>	<u>\$ 67,035.4</u>
LIABILITIES AND EQUITY		
Current liabilities:		
Accounts payable and accrued expenses	\$ 3,842.0	\$ 4,312.4
Short term borrowings and capital leases	3,204.9	3,068.0
Other current liabilities	389.6	362.9
Total current liabilities	7,436.5	7,743.3
Long term borrowings and capital leases	18,355.1	19,899.8
Deferred tax liability	7,788.0	8,322.7
Other non-current liabilities	2,346.2	2,121.6
Total liabilities	<u>35,925.8</u>	<u>38,087.4</u>
Commitments and contingencies		
Equity:		
Common stock of 5p par value; 1,500 shares authorized; and 915.3 shares issued and outstanding (2016: 1,500 shares authorized; and 912.2 shares issued and outstanding)	81.5	81.3
Additional paid-in capital	24,951.2	24,740.9
Treasury stock: 8.4 shares (2016: 9.1 shares)	(283.0)	(301.9)
Accumulated other comprehensive income/(loss)	200.1	(1,497.6)
Retained earnings	6,315.3	5,925.3
Total equity	<u>31,265.1</u>	<u>28,948.0</u>
Total liabilities and equity	<u>\$ 67,190.9</u>	<u>\$ 67,035.4</u>

The accompanying notes are an integral part of these Unaudited Consolidated Financial Statements.

SHIRE PLC

CONSOLIDATED STATEMENTS OF OPERATIONS

(Unaudited, in millions, except per share amounts)

	Three months ended June 30.		Six months ended June 30.	
	2017	2016	2017	2016
Revenues:				
Product sales	\$ 3,591.8	\$ 2,322.1	\$ 7,004.1	\$ 3,949.4
Royalties & other revenues	154.0	107.0	314.0	189.0
Total revenues	<u>3,745.8</u>	<u>2,429.1</u>	<u>7,318.1</u>	<u>4,138.4</u>
Costs and expenses:				
Cost of sales	1,108.9	778.1	2,435.9	1,026.7
Research and development	542.4	294.8	921.7	511.9
Selling, general and administrative	899.1	675.3	1,788.0	1,150.2
Amortization of acquired intangible assets	434.1	213.0	798.1	347.6
Integration and acquisition costs	343.7	363.0	459.7	454.1
Reorganization costs	13.6	11.0	19.1	14.3
Loss/(gain) on sale of product rights	4.8	(2.3)	(0.7)	(6.5)
Total operating expenses	<u>3,346.6</u>	<u>2,332.9</u>	<u>6,421.8</u>	<u>3,498.3</u>
Operating income from continuing operations	399.2	96.2	896.3	640.1
Interest income	1.1	1.6	4.2	2.6
Interest expense	(141.3)	(87.2)	(283.6)	(131.9)
Other income/(expense), net	2.5	6.0	7.0	(2.5)
Total other expense, net	<u>(137.7)</u>	<u>(79.6)</u>	<u>(272.4)</u>	<u>(131.8)</u>
Income from continuing operations before income taxes and equity in earnings/(losses) of equity method investees	261.5	16.6	623.9	508.3
Income taxes	(24.3)	70.9	(31.1)	(11.2)
Equity in earnings/(losses) of equity method investees, net of taxes	4.3	(0.9)	3.5	(1.0)
Income from continuing operations, net of taxes	241.5	86.6	596.3	496.1
(Loss)/gain from discontinued operations, net of taxes	(1.2)	(248.7)	19.0	(239.2)
Net income/(loss)	<u>\$ 240.3</u>	<u>\$ (162.1)</u>	<u>\$ 615.3</u>	<u>\$ 256.9</u>

The accompanying notes are an integral part of these Unaudited Consolidated Financial Statements.

SHIRE PLC

CONSOLIDATED STATEMENTS OF OPERATIONS (continued)

(Unaudited, in millions, except per share amounts)

	Three months ended June 30,		Six months ended June 30,	
	2017	2016	2017	2016
Earnings/(loss) per Ordinary Share – basic				
Earnings from continuing operations	\$ 0.27	\$ 0.12	\$ 0.66	\$ 0.78
(Loss)/gain from discontinued operations	—	(0.36)	0.02	(0.38)
Earnings/(loss) per Ordinary Share – basic	\$ 0.27	\$ (0.24)	\$ 0.68	\$ 0.40
Earnings/(loss) per Ordinary Share – diluted				
Earnings from continuing operations	\$ 0.26	\$ 0.12	\$ 0.65	\$ 0.77
(Loss)/earnings from discontinued operations	—	(0.36)	0.02	(0.37)
Earnings/(loss) per Ordinary Share – diluted	\$ 0.26	\$ (0.24)	\$ 0.67	\$ 0.40
Weighted average number of shares:				
Basic	906.4	682.8	905.3	637.3
Diluted	912.7	682.8	912.3	640.1

The accompanying notes are an integral part of these Unaudited Consolidated Financial Statements.

SHIRE PLC

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(Unaudited, in millions)

	Three months ended June 30.		Six months ended June 30.	
	2017	2016	2017	2016
Net income/(loss)	\$ 240.3	\$ (162.1)	\$ 615.3	\$ 256.9
Other comprehensive income/(loss):				
Foreign currency translation adjustments	1,431.0	(220.2)	1,696.5	(195.5)
Pension and other employee benefits (net of tax expense of \$1.3 and \$0.9 for the three and six months ended June 30, 2017 and \$nil for both the three and six months ended June 30, 2016)	3.2	—	10.6	—
Unrealized loss on available-for-sale securities (net of tax benefit of \$0.5 and tax expense of \$1.7 for the three and six months ended June 30, 2017 and tax benefit of \$1.4 for both the three and six months ended June 30, 2016)	(5.6)	(4.4)	(3.5)	(4.7)
Hedging activities (net of tax benefit of \$0.5 and \$3.2 for the three and six months ended June 30, 2017 and \$1.6 for both the three and six months ended June 30, 2016)	(1.4)	(1.8)	(5.9)	(1.8)
Comprehensive income/(loss)	\$ 1,667.5	\$ (388.5)	\$ 2,313.0	\$ 54.9

The components of Accumulated other comprehensive income/(loss) as of June 30, 2017 and December 31, 2016 are as follows:

	June 30, 2017	December 31, 2016
Foreign currency translation adjustments	\$ 191.1	\$ (1,505.4)
Pension and other employee benefits, net of taxes	5.4	(5.2)
Unrealized holding gain on available-for-sale securities, net of taxes	3.1	6.6
Hedging activities, net of taxes	0.5	6.4
Accumulated other comprehensive income/(loss)	\$ 200.1	\$ (1,497.6)

The accompanying notes are an integral part of these Unaudited Consolidated Financial Statements.

SHIRE PLC

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

(Unaudited, in millions)

	Common stock number of shares	Common stock	Additional paid-in capital	Treasury stock	Accumulated other comprehensive income	Retained earnings	Total equity
As of January 1, 2017	912.2	\$ 81.3	\$ 24,740.9	\$ (301.9)	\$ (1,497.6)	\$ 5,925.3	\$ 28,948.0
Net income	—	—	—	—	—	615.3	615.3
Other comprehensive income net of tax	—	—	—	—	1,697.7	—	1,697.7
Shares issued under employee benefit plans and other	3.1	0.2	93.2	—	—	—	93.4
Cumulative-effect adjustment from adoption of ASU 2016-09	—	—	10.7	—	—	28.3	39.0
Share-based compensation	—	—	106.4	—	—	—	106.4
Shares released by employee benefit trust to satisfy exercise of stock options	—	—	—	18.9	—	(18.9)	—
Dividends	—	—	—	—	—	(234.7)	(234.7)
As of June 30, 2017	915.3	\$ 81.5	\$ 24,951.2	\$ (283.0)	\$ 200.1	\$ 6,315.3	\$ 31,265.1

Dividends per share

During the six months ended June 30, 2017, Shire plc declared and paid dividends of \$0.257 U.S. per ordinary share (equivalent to \$0.771 U.S. per ADS) totaling \$234.7 million.

The accompanying notes are an integral part of these Unaudited Consolidated Financial Statements.

SHIRE PLC

CONSOLIDATED STATEMENTS OF CASH FLOWS

(Unaudited, in millions)

	Six months ended June 30,	
	2017	2016
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net income	\$ 615.3	\$ 256.9
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	1,041.7	429.8
Share based compensation	106.4	194.8
Amortization of deferred financing fees	6.8	50.1
Expense related to the unwind of inventory fair value adjustments	625.4	293.5
Change in deferred taxes	(293.3)	(329.2)
Change in fair value of contingent consideration	147.7	(45.0)
Impairment of PP&E and intangible assets	53.6	8.9
Other, net	14.8	(17.6)
Changes in operating assets and liabilities:		
Increase in accounts receivable	(181.5)	(181.0)
Increase in sales deduction accrual	57.1	66.4
Increase in inventory	(171.6)	(116.4)
Decrease in prepayments and other assets	104.6	26.5
(Decrease)/increase in accounts payable and other liabilities	(445.1)	342.7
Net cash provided by operating activities	<u>1,681.9</u>	<u>980.4</u>
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchases of PP&E and long term investments	(391.1)	(179.1)
Purchases of businesses, net of cash acquired	—	(17,476.2)
Proceeds from sale of investments	40.6	—
Movements in restricted cash	(8.6)	67.2
Other, net	3.2	3.3
Net cash used in investing activities	<u>(355.9)</u>	<u>(17,584.8)</u>

The accompanying notes are an integral part of these Unaudited Consolidated Financial Statements.

SHIRE PLC

CONSOLIDATED STATEMENTS OF CASH FLOWS (continued)

(Unaudited, in millions)

	Six months ended June 30,	
	2017	2016
CASH FLOWS FROM FINANCING ACTIVITIES:		
Proceeds from revolving line of credit, long term and short term borrowings	2,111.9	18,895.0
Repayment of revolving line of credit, long term and short term borrowings	(3,527.9)	(1,500.3)
Payment of dividend	(234.7)	(130.2)
Debt issuance costs	—	(112.3)
Proceeds from exercise of options	79.5	0.1
Other, net	(24.0)	11.9
Net cash (used in)/provided by financing activities	<u>(1,595.2)</u>	<u>17,164.2</u>
Effect of foreign exchange rate changes on cash and cash equivalents	4.1	(1.9)
Net (decrease)/increase in cash and cash equivalents	(265.1)	557.9
Cash and cash equivalents at beginning of period	528.8	135.5
Cash and cash equivalents at end of period	<u>\$ 263.7</u>	<u>\$ 693.4</u>

Supplemental information:

	Six months ended June 30,	
	2017	2016
Interest paid	\$ 267.0	\$ 111.4
Income taxes paid, net	\$ 176.0	\$ 253.7

For stock issued as purchase consideration for the acquisition of Baxalta related to non-cash investing activities, refer to Note 2, Business Combinations, to these Unaudited Consolidated Financial Statements.

The accompanying notes are an integral part of these Unaudited Consolidated Financial Statements.

NOTES TO THE UNAUDITED CONSOLIDATED FINANCIAL STATEMENTS

1. Summary of Significant Accounting Policies

Basis of Presentation

These interim financial statements of Shire plc and its subsidiaries (collectively “Shire” or the “Group”) are unaudited. They have been prepared in accordance with generally accepted accounting principles in the United States of America (“U.S. GAAP”).

The Consolidated Balance Sheet as of December 31, 2016 was derived from the Audited Consolidated Financial Statements as of that date.

These interim Unaudited Consolidated Financial Statements should be read in conjunction with the Consolidated Financial Statements and accompanying notes included in the Group’s Annual Report and Accounts for the year ended December 31, 2016, as filed with the SEC on February 22, 2017.

Certain information and footnote disclosures normally included in financial statements prepared in accordance with U.S. GAAP have been condensed or omitted from these interim financial statements. However, these interim financial statements include all adjustments, consisting of normal recurring adjustments, which are, in the opinion of management, necessary to fairly state the results of the interim period and the Group believes that the disclosures are adequate to make the information presented not misleading. Interim results are not necessarily indicative of results to be expected for the full year.

On June 3, 2016, the Group completed its acquisition of Baxalta for \$32.4 billion, representing the fair value of purchase consideration. The Group’s Unaudited Consolidated Financial Statements include the results of Baxalta from the date of acquisition. For further details regarding the acquisition, refer to Note 2, Business Combinations, of these Unaudited Consolidated Financial Statements.

Use of Estimates

The preparation of Financial Statements, in conformity with U.S. GAAP and SEC regulations, requires management to make estimates, judgments and assumptions that affect the reported and disclosed amounts of assets, liabilities and equity at the date of the Unaudited Consolidated Financial Statements and reported amounts of revenues and expenses during the period. On an on-going basis, the Group evaluates its estimates, judgments and methodologies. Estimates are based on historical experience, current conditions and on various other assumptions that are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets, liabilities and equity and the amounts of revenues and expenses. Actual results may differ from these estimates under different assumptions or conditions.

New Accounting Pronouncements

From time to time, new accounting pronouncements are issued by the Financial Accounting Standards Board (“FASB”) or other standard setting bodies that the Group adopts as of the specified effective date. Unless otherwise discussed below, the Group does not believe that the impact of recently issued standards that are not yet effective will have a material impact on the Group’s financial position or results of operations upon adoption.

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Adopted during the current period

Inventory

In July 2015, the FASB issued new guidance which requires an entity to measure inventory at the lower of cost and net realizable value. Net realizable value is defined as the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal and transportation. The Group adopted this standard as of January 1, 2017, which did not impact the Group's financial position or results of operations.

Share-Based Payment Accounting

In March 2016, the FASB issued Accounting Standards Update ("ASU") No. 2016-09, Compensation - Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting. The new standard requires recognition of the income tax effects of vested or settled awards in the income statement and involves several other aspects of the accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities and classification on the statement of cash flows and allows a one-time accounting policy election to account for forfeitures as they occur. The new standard was effective January 1, 2017.

The Group adopted ASU 2016-09 in the first quarter of 2017. Before adoption, excess tax benefits or deficiencies from the Group's equity awards were recorded as Additional paid-in capital in its Consolidated Balance Sheets. Upon adoption, the Group recorded any excess tax benefits or deficiencies from its equity awards in its Consolidated Statements of Operations in the reporting periods in which vesting or settlement occurs.

Amendments related to accounting for excess tax benefits have been adopted prospectively, resulting in recognition of excess tax benefits against Income taxes rather than Additional paid-in capital of \$11.5 million for the six months ended June 30, 2017.

As a result of the adoption, the Group recorded an adjustment to Retained earnings of \$39.0 million to recognize net operating loss carryforwards attributable to excess tax benefits on stock compensation that had not been previously recognized to Additional paid-in capital.

Excess tax benefits for share-based payments are now included in Net cash provided by operating activities rather than Net cash provided by financing activities. The changes have been applied prospectively in accordance with the ASU and prior periods have not been adjusted.

Upon adoption of ASU 2016-09, the Group elected to account for forfeitures in relation to service conditions as they occur. The change was applied on a modified retrospective basis with a cumulative effect adjustment to Retained earnings of \$10.7 million as of January 1, 2017.

Definition of a Business

In January 2017, the FASB issued ASU No. 2017-01, Business Combinations (Topic 805): Clarifying the Definition of a Business. This new standard clarifies the definition of a business and provides guidance to determine when an integrated set of assets and activities is not a business. The Group adopted this standard prospectively on January 1, 2017.

To be adopted in future periods

Simplifying the Test for Goodwill Impairment

In January 2017, the FASB issued ASU No. 2017-04, Intangibles - Goodwill and Other (Topic 350): Simplifying the Test of Goodwill Impairment. This new standard simplifies how an entity is required to test goodwill for impairment by eliminating Step 2 from the goodwill impairment test. Step 2 measures a goodwill impairment loss by comparing

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the implied fair value of a reporting unit's goodwill with the carrying amount of that goodwill. This standard will be effective for the Group as of January 1, 2020, with early adoption permitted for annual goodwill impairment tests performed after January 1, 2017. The Group does not expect the adoption of this standard to have a material impact on its financial position and results of operations.

Revenue from Contracts with Customers

In May 2014, the FASB issued ASU No. 2014-09, Revenue from Contracts with Customers (Topic 606), which supersedes all existing revenue recognition requirements, including most industry-specific guidance. The new standard requires a Group to recognize revenue when it transfers goods or services to customers in an amount that reflects the consideration that the Group expects to receive for those goods or services. The new standard also requires additional qualitative and quantitative disclosures.

In August 2015, the FASB issued ASU No. 2015-14, Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date, which delayed the effective date of the new standard from January 1, 2017 to January 1, 2018. The FASB also agreed to allow entities to choose to adopt the standard as of the original effective date.

The FASB has subsequently issued five additional ASUs amending the guidance in Topic 606, each with the same effective date and transition date of January 1, 2018. This amended guidance has been considered in the Group's overall assessment of the new standard.

Shire will adopt this standard on the effective date of January 1, 2018. The Group is currently evaluating the method of adoption and the potential impact on its financial position and results of operations of adopting this guidance. The Group has identified two primary revenue streams from contracts with customers as part of its initial assessment: 1) product sales and 2) licensing arrangements. Shire is in the process of evaluating these contracts and is not yet able to estimate the anticipated impact to the Group's financial statements from the application of the new standard.

Financial Instrument Accounting

In January 2016, the FASB issued ASU No. 2016-01, Financial Instruments - Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities. The new standard amends certain aspects of accounting and disclosure requirements of financial instruments, including the requirement that equity investments with readily determinable fair values be measured at fair value with changes in fair value recognized in the results of operations. This standard will be effective for the Group as of January 1, 2018. The Group is currently evaluating the method of adoption and the potential impact on its financial position and results of operations of adopting this guidance.

Leases

In February 2016, the FASB issued ASU No. 2016-02, Leases (Topic 842). The new accounting guidance will require the recognition of all lease assets and lease liabilities by lessees and sets forth new disclosure requirements for those lease assets and liabilities. The standard requires lessees to recognize right-of-use assets and lease liabilities on the balance sheet using a modified retrospective approach at the beginning of the earliest comparative period in the financial statements. This standard will be effective for the Group as of January 1, 2019. Early adoption is permitted. The Group is currently evaluating the potential impact on its financial position and results of operations of adopting this guidance.

Statement of Cash Flows

In August 2016, the FASB issued ASU No. 2016-15, Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments. The new standard clarifies certain aspects of the statement of cash flows, and aims to reduce diversity in practice regarding how certain transactions are classified in the statement of cash flows.

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This standard will be effective for the Group as of January 1, 2018. Early adoption is permitted. The adoption of this guidance is not expected to have a significant impact on the Group's Consolidated Statement of Cash Flows.

In November 2016, the FASB issued ASU 2016-18, Statement of Cash Flows (Topic 230): Restricted Cash. The new guidance is intended to reduce diversity in the presentation of restricted cash and restricted cash equivalents in the statement. The guidance requires that restricted cash and restricted cash equivalents be included as components of total cash and cash equivalents as presented on the statement of cash flows. This standard will be effective for the Group as of January 1, 2018. The adoption of this guidance is not expected to have a significant impact on the Group's Consolidated Statements of Cash Flows.

Income Taxes

In October 2016, the FASB issued ASU No. 2016-16, Income Taxes (Topic 740): Intra-Entity Transfers Other than Inventory. This standard removes the current exception in U.S. GAAP prohibiting entities from recognizing current and deferred income tax expenses or benefits related to transfer of assets, other than inventory, within the consolidated entity. The current exception to defer the recognition of any tax impact on the transfer of inventory within the consolidated entity until it is sold to a third party remains unaffected. This standard will be effective for the Group as of January 1, 2018, with the early adoption permitted. The Group is currently evaluating the method of adoption and the potential impact on its financial position and results of operations of adopting this guidance.

Retirement Benefits Income Statement Presentation

In March 2017, the FASB issued ASU 2017-07 Compensation - Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost. The standard amends the income statement presentation of the components of net periodic benefit cost for defined benefit pension and other postretirement plans. The standard requires entities to (1) disaggregate the current-service-cost component from the other components of net benefit cost (the "other components") and present it with other current compensation costs for related employees in the income statement and (2) present the other components elsewhere in the income statement and outside of income from operations if such a subtotal is presented. The standard also requires entities to disclose the income statement lines that contain the other components if they are not presented on appropriately described separate lines. This standard will be effective for the Group as of January 1, 2018. The Group does not expect the adoption of this standard to have a material impact on its financial position and results of operations.

Share-Based Payment Accounting

In May 2017, the FASB issued ASU No. 2017-09, Compensation - Stock Compensation (Topic 718): Scope Modification Accounting. The new standard clarifies when changes to the terms or conditions of a share-based payment award must be accounted for as modifications. This standard will be effective for the Group as of January 1, 2018. Early adoption is permitted. The adoption of this guidance is not expected to have a significant impact on the Group's financial position and results of operations.

Going concern

The Directors have a reasonable expectation that the Group has adequate resources to continue in operational existence for the foreseeable future. Accordingly, the Directors consider it appropriate to adopt the going concern basis of accounting in preparing the Half-yearly Report.

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2. Business Combinations

Acquisition of Baxalta

On June 3, 2016, Shire acquired all of the outstanding common stock of Baxalta for \$18.00 per share in cash and 0.1482 Shire American Depository Shares (“ADSs”) per Baxalta share, or if a former Baxalta shareholder properly elected, 0.4446 Shire ordinary shares per Baxalta share.

Baxalta was a global biopharmaceutical company that focused on developing, manufacturing and commercializing therapies for orphan diseases and underserved conditions in hematology, immunology and oncology.

The purchase price consideration for the acquisition of Baxalta was finalized in the second quarter of 2017. The fair value of the purchase price consideration consisted of the following:

(In millions)	Fair value
Cash paid to shareholders	\$ 12,366.7
Fair value of stock issued to shareholders	19,353.2
Fair value of partially vested stock options and RSUs assumed	508.8
Contingent consideration payable	165.0
Total purchase price consideration	\$ 32,393.7

The acquisition of Baxalta was accounted for as a business combination using the acquisition method of accounting. Shire issued 305.2 million shares to former Baxalta shareholders at the date of the acquisition. For a more detailed description of the fair value of the partially vested stock options and RSUs assumed, refer to Note 27, Share-based Compensation Plans, of the Group’s Annual Report and Accounts for the year ended December 31, 2016.

The assets acquired and the liabilities assumed from Baxalta have been recorded at their fair value as of June 3, 2016, the date of acquisition. The Group’s Unaudited Consolidated Financial Statements included the results of Baxalta from the date of acquisition.

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The purchase price allocation for the acquisition of Baxalta was finalized in the second quarter of 2017. The Group's allocation of the purchase price to the assets acquired and liabilities assumed as of the acquisition date, including measurement period adjustments, is outlined below.

(In millions)	Preliminary value as of acquisition date (as previously reported as of December 31, 2016)	Measurement period adjustments	Values as of June 30, 2017
ASSETS			
Current assets:			
Cash and cash equivalents	\$ 583.2	\$ —	\$ 583.2
Accounts receivable	1,069.7	(96.4)	973.3
Inventories	3,893.4	81.2	3,974.6
Other current assets	576.0	5.3	581.3
Total current assets	6,122.3	(9.9)	6,112.4
Property, plant and equipment	5,452.7	(46.5)	5,406.2
Investments	128.2	—	128.2
Goodwill	11,422.4	1,076.2	12,498.6
Intangible assets			
Currently marketed products	21,995.0	(830.0)	21,165.0
In-Process Research and Development ("IPR&D")	730.0	(570.0)	160.0
Contract based arrangements	42.2	—	42.2
Other non-current assets	155.0	69.7	224.7
Total assets	\$ 46,047.8	\$ (310.5)	\$ 45,737.3
LIABILITIES			
Current liabilities:			
Accounts payable and accrued expenses	\$ 1,321.9	\$ (2.7)	\$ 1,319.2
Other current liabilities	354.4	9.0	363.4
Long term borrowings and capital leases	5,424.9	—	5,424.9
Deferred tax liability	5,445.3	(315.0)	5,130.3
Other non-current liabilities	1,103.6	2.2	1,105.8
Total liabilities	\$ 13,650.1	\$ (306.5)	\$ 13,343.6
Fair value of identifiable assets acquired and liabilities assumed	\$ 32,397.7	\$ (4.0)	\$ 32,393.7
Consideration			
Fair value of purchase consideration	\$ 32,397.7	\$ (4.0)	\$ 32,393.7

The measurement period adjustments for Intangible assets reflect changes in the estimated fair value of currently marketed products and IPR&D. Changes are mainly related to finalizing the unit of account judgments and other changes in estimates including Cost of sales allocation and royalty expense. The measurement period adjustments for Inventory primarily reflect refinements in the estimated selling price of inventory. The changes in the estimated fair values primarily are to more accurately reflect market participant assumptions about facts and circumstances existing as of the acquisition date. The measurement period adjustments did not result from intervening events subsequent to the acquisition date.

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As a result of measurement period adjustments related to the change in fair value of currently marketed products and inventory, a charge of \$85.2 million was recognized in Cost of sales and a benefit of \$23.3 million was recognized in Amortization of acquired intangible assets, respectively, in the Group's Unaudited Consolidated Statements of Operations for the six months ended June 30, 2017. These adjustments would have been recorded during the year ended December 31, 2016 if these adjustments had been recognized as of the acquisition date.

Intangible assets

The fair value of the identifiable intangible assets has been estimated using an income approach, which is a valuation technique that provides an estimate of the fair value of an asset based on market participant expectations of the incremental after tax cash flows an asset would generate over its remaining useful life. The useful lives for currently marketed products were determined based upon the remaining useful economic lives of the assets that are expected to contribute to future cash flows.

Currently marketed products totaling \$21,165.0 million relate to intellectual property ("IP") rights acquired for Baxalta's currently marketed products. The estimated useful life of the intangible assets related to currently marketed products range from 6 to 23 years (weighted average 21 years), with amortization being recorded on a straight-line basis.

IPR&D intangible assets totaling \$160.0 million represent the value assigned to research and development ("R&D") projects acquired. The IPR&D intangible assets are capitalized and accounted for as indefinite-lived intangible assets and will be subject to impairment testing until completion or abandonment of the projects. Upon successful completion of each project, the Group will make a separate determination of the estimated useful life of the IPR&D intangible asset and the related amortization will be recorded as an expense over the estimated useful life.

Some of the more significant assumptions inherent in the development of those asset valuations include the estimated net cash flows for each year for each asset or product (including net revenues, cost of sales, R&D costs, selling and marketing costs, working capital/asset contributory asset charges and other cash flow assumptions), the appropriate discount rate to select in order to measure the risk inherent in each future cash flow stream, the assessment of each asset's life cycle, the potential regulatory and commercial success risks, competitive trends impacting the asset and each cash flow stream as well as other factors.

The discount rate used to arrive at the present value at the acquisition date of the IPR&D intangible assets was 9.5% to reflect the internal rate of return and incremental commercial uncertainty in the cash flow projections. No assurances can be given that the underlying assumptions used to prepare the discounted cash flow analysis will not change. For these and other reasons, actual results may vary significantly from estimated results.

Goodwill

Goodwill of \$12,498.6 million, which is not deductible for tax purposes, includes the expected synergies that will result from combining the operations of Baxalta with Shire, intangible assets that do not qualify for separate recognition at the time of the acquisition, the value of the assembled workforce, and impacted by establishing a deferred tax liability for the acquired identifiable intangible assets which have no tax basis.

Contingent consideration

The Group acquired certain contingent obligations classified as contingent consideration related to Baxalta's historical business combinations. Additional consideration is conditionally due upon the achievement of certain milestones related to the development, regulatory, first commercial sale and other sales milestones, which could total up to approximately \$1.5 billion. The Group may also pay royalties based on certain product sales. The Group estimated the fair value of the assumed contingent consideration to be \$165.0 million using a probability weighting approach that considered the possible outcomes based on assumptions related to the timing and probability of the

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product launch date, discount rates matched to the timing of first payment and probability of success rates and discount adjustments on the related cash flows.

Inventory

The estimated fair value of work-in-process and finished goods inventory was determined utilizing the net realizable value, based on the expected selling price of the inventory, adjusted for incremental costs to complete the manufacturing process and for direct selling efforts, as well as for a reasonable profit allowance. The estimated fair value of raw material inventory was valued at replacement cost, which is equal to the value a market participant would pay to acquire the inventory.

The fair value adjustment related to inventory is expensed based on the expected product-specific inventory utilization, which is reviewed on a periodic basis and is recorded within Cost of sales in the Group's Unaudited Consolidated Statements of Operations.

Retirement plans

The Group assumed pension plans as part of the acquisition of Baxalta, including defined benefit and post-retirement benefit plans in the U.S. and foreign jurisdictions, which had a net liability balance of \$610.4 million. As of June 3, 2016, the Baxalta defined benefit pension plans had assets with a fair value of \$358.5 million.

Integration and acquisition costs

In the three and six months ended June 30, 2017, the Group expensed \$192.4 million and \$310.9 million, respectively, relating to the acquisition and integration of Baxalta, which have been recorded within Integration and acquisition costs in the Group's Unaudited Consolidated Statements of Operations. Refer to Note 4, Integration and Acquisition Costs, for further information regarding the Group's Integration and acquisition costs for the three and six months ended June 30, 2017.

Supplemental disclosure of pro forma information

The following unaudited pro forma financial information presents the combined results of the operations of Shire and Baxalta as if the acquisition of Baxalta had occurred as of January 1, 2015. The unaudited pro forma financial information is not necessarily indicative of what the consolidated results of operations actually would have been had the respective acquisitions been completed on January 1, 2015. In addition, the unaudited pro forma financial information does not purport to project the future results of operations of the combined Group.

(In millions, except per share amounts)	Three months ended June 30, 2016	Six months ended June 30, 2016
Revenues	\$ 3,484.1	\$ 6,741.4
Net income from continuing operations	621.3	923.9
Per share amounts:		
Net income from continuing operations per share - basic	\$ 0.70	\$ 1.04
Net income from continuing operations per share - diluted	\$ 0.70	\$ 1.04

The unaudited pro forma financial information above reflects the following pro forma adjustments:

- (i) an adjustment to increase net income for the three and six months ended June 30, 2016 by \$371.8 million and \$411.3 million, respectively, to eliminate integration and acquisition related costs incurred by Shire and Baxalta;

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- (ii) an adjustment to increase net income for the three and six months ended June 30, 2016 by \$218.5 million and \$171.6 million, respectively, to reflect the expense related to the unwind of inventory fair value adjustments as inventory is sold;
- (iii) an adjustment to increase amortization expense for the three and six months ended June 30, 2016 by \$121.8 million and \$306.0 million, respectively, related to the identifiable intangible assets acquired; and
- (iv) an adjustment to decrease net income for the three and six months ended June 30, 2016 by \$33.8 million and \$94.2 million, respectively, primarily related to the additional interest expense associated with the debt incurred to partially fund the acquisition of Baxalta and the amortization of related deferred debt issuance costs.

The adjustments above are stated net of their tax effects, where applicable.

Acquisition of Dyax

On January 22, 2016, Shire acquired all of the outstanding common stock of Dyax for \$37.30 per share in cash. Under the terms of the merger agreement, former Dyax shareholders may receive additional value through a non-tradable contingent value right worth \$4.00 per share, payable upon U.S. Food and Drug Administration ("FDA") approval of SHP643 (formerly DX-2930) in Hereditary Angioedema ("HAE").

Dyax was a publicly-traded, Massachusetts-based rare disease biopharmaceutical company primarily focused on the development of plasma kallikrein ("pKal") inhibitors for the treatment of HAE. Dyax's most advanced clinical program was SHP643, a Phase 3 program with the potential for improved efficacy and convenience for HAE patients. SHP643 has received Fast Track, Breakthrough Therapy, and Orphan Drug Designations by the FDA and has also received Orphan Drug status in the EU. Dyax's sole marketed product, KALBITOR, is a pKal inhibitor for the treatment of acute attacks of HAE in patients 12 years of age and older.

The acquisition of Dyax was accounted for as a business combination using the acquisition method. The acquisition-date fair value consideration was \$6,330.0 million, comprising cash paid on closing of \$5,934.0 million and the fair value of the contingent value right of \$396.0 million (maximum payable \$646.0 million). The assets acquired and the liabilities assumed from Dyax have been recorded at their fair value as of January 22, 2016, the date of acquisition. The Group's Unaudited Consolidated Financial Statements include the results of Dyax as of January 22, 2016.

The purchase price allocation for the acquisition of Dyax was finalized in the first quarter of 2017. The allocation of the total purchase price is outlined below.

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(In millions)	Fair value
ASSETS	
Current assets:	
Cash and cash equivalents	\$ 241.2
Accounts receivable	22.5
Inventories	20.2
Other current assets	8.1
Total current assets	292.0
Property, plant and equipment	5.8
Goodwill	2,702.1
Intangible assets	
Currently marketed projects	135.0
IPR&D	4,100.0
Contract based royalty arrangements	425.0
Other non-current assets	28.6
Total assets	<u>\$ 7,688.5</u>
LIABILITIES	
Current liabilities:	
Accounts payable and accrued expenses	\$ 30.0
Other current liabilities	1.7
Deferred tax liability	1,325.4
Other non-current liabilities	1.4
Total liabilities	<u>\$ 1,358.5</u>
Fair value of identifiable assets acquired and liabilities assumed	<u>\$ 6,330.0</u>
Consideration	
Fair value of purchase consideration	<u>\$ 6,330.0</u>

Currently marketed products

Currently marketed products totaling \$135.0 million relate to intellectual property rights acquired for KALBITOR. The fair value of the currently marketed product has been estimated using an income approach, based on the present value of incremental after tax cash flows attributable to KALBITOR.

The estimated useful life of the KALBITOR intangible asset is 18 years, with amortization being recorded on a straight-line basis.

IPR&D

The IPR&D asset of \$4,100.0 million relates to Dyax's clinical program SHP643, a Phase 3 program with the potential for improved efficacy and convenience for HAE patients. The IPR&D intangible asset is capitalized and accounted for as indefinite-lived intangible assets and will be subject to impairment testing until completion or abandonment of the projects. The fair value of this IPR&D asset was estimated based on an income approach, using the present value of incremental after tax cash flows expected to be generated by this development project. The estimated cash flows have been probability adjusted to take into account the development stage of completion and the remaining risks and uncertainties surrounding the future development and commercialization.

The estimated probability adjusted after tax cash flows used to estimate the fair value of intangible assets have been discounted at 9%.

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Royalty rights

Intangible assets totaling \$425.0 million relate to royalty rights arising from licensing agreements of a portfolio of product candidates. This portfolio includes two approved products, marketed by Eli Lilly & Company, and various development-stage products. Multiple product candidates with other pharmaceutical companies are in various stages of clinical development for which the Group is eligible to receive future royalties and/or milestone payments.

The fair value of these royalty rights has been estimated using an income approach, based on the present value of incremental after-tax cash flows attributable to each royalty right.

The estimated useful lives of these royalty rights range from seven to nine years (weighted average eight years), with amortization being recorded on a straight-line basis.

Goodwill

Goodwill of \$2,702.1 million, which is not deductible for tax purposes, includes the expected synergies that will result from combining the operations of Dyax with Shire; intangible assets that do not qualify for separate recognition at the time of the acquisition; the value of the assembled workforce; and impacted by establishing a deferred tax liability for the acquired identifiable intangible assets which have no tax basis.

Integration and acquisition costs

Refer to Note 4, Integration and Acquisition Costs, for further information regarding the Group's Integration and acquisition costs for the three and six months ended June 30, 2017.

Supplemental disclosure of pro forma information

The following unaudited pro forma financial information presents the combined results of the operations of Shire and Dyax as if the acquisitions of Dyax had occurred as of January 1, 2015. The unaudited pro forma financial information is not necessarily indicative of what the consolidated results of operations actually would have been had the respective acquisitions been completed at the date indicated. In addition, the unaudited pro forma financial information does not purport to project the future results of operations of the combined Group.

(In millions, except per share amounts)	Six months ended June 30, 2016
Revenues	\$ 4,144.3
Net income from continuing operations	490.2
Per share amounts:	
Net income from continuing operations per share - basic	\$ 0.77
Net income from continuing operations per share - diluted	\$ 0.77

The unaudited pro forma financial information above reflects the following pro forma adjustments:

- (i) an adjustment to increase net income for the three and six months ended June 30, 2016 by \$2.0 million and \$101.2 million, respectively, to eliminate acquisition related costs incurred by Shire and Dyax; and
- (ii) an adjustment to increase amortization expense for the six months ended June 30, 2016 by \$1.3 million related to the identifiable intangible assets acquired.

The adjustments above are stated net of their tax effects, where applicable.

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3. Collaborative and Other Licensing Arrangements

The Group is party to certain collaborative or licensing arrangements. In some of these arrangements, Shire and the licensee are both actively involved in the development and commercialization of the licensed product and have exposure to risks and rewards dependent on its commercial success.

During the second quarter of 2017, Shire entered into an agreement to license the exclusive worldwide rights to SHP659 (formerly known as P-321) from Parion Sciences ("Parion"). SHP659 is a Phase 2 investigational epithelial sodium channel inhibitor for the potential treatment of dry eye disease in adults. Under the terms of the agreement, Shire will develop, and if approved, commercialize this compound. Shire made an initial \$20.0 million upfront license payment, which was included in Research and development expense in the Group's Unaudited Consolidated Statements of Operations. Parion will be entitled to receive additional potential milestone payments up to \$515.0 million based on clinical, regulatory and commercial milestones and Parion has the option to co-fund through additional stages of development in exchange for enhanced tiered low double-digit royalties. In addition, Parion has the option to co-fund commercialization activities and participate in the financial outcome from those activities.

4. Integration and Acquisition Costs

In the three and six months ended June 30, 2017, Shire recorded Integration and acquisition costs of \$343.7 million and \$459.7 million, respectively, primarily due to the acquisition and integration of Baxalta and Dyax. In the three and six months ended June 30, 2017, \$151.2 million and \$147.7 million is included in Integration and acquisition costs relating to the change in fair value of contingent consideration payable.

During the second quarter of 2017, Shire entered its second phase of integration activities. The costs associated with this phase will primarily relate to headcount reduction as The Group continues to advance and complete activities related to exiting the transition services agreements ("TSA") with Baxter, integrating legal entities and rationalization of the Group's manufacturing facilities. The Group also plans to drive savings through the continued prioritization of its research and development programs and continued consolidation of its commercial operations. The integration of Baxalta is estimated to be completed by mid to late 2019.

The Baxalta integration and acquisition costs include \$80.2 million and \$117.1 million, respectively, of employee severance and acceleration of stock compensation, \$50.4 million and \$85.6 million, respectively, of third-party professional fees and \$17.2 million and \$41.7 million, respectively, of expenses associated with facility consolidations for the three and six months ended June 30, 2017. The Group expects the majority of these expenses, except for certain costs related to facility consolidations, to be paid within the next 12 months. The Group also recognized \$33.6 million of expenses during the three and six months ended June 30, 2017 related to asset impairments in Integration and acquisition costs.

The following table summarizes the type and amount of integration costs recorded as of June 30, 2017:

(In millions)	Severance and employee benefits	Lease terminations	Total
As of January 1,	\$ 74.0	\$ —	\$ 74.0
Amount charged to integration costs	97.7	41.7	139.4
Paid/utilized	(74.6)	(4.1)	(78.7)
As of June 30,	<u>\$ 97.1</u>	<u>\$ 37.6</u>	<u>\$ 134.7</u>

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For the three and six months ended June 30, 2016, Shire recorded Integration and acquisition costs of \$363.0 million and \$454.1 million, respectively, primarily related to the acquisition and integration of Dyax and Baxalta. These costs primarily consist of \$67.1 million and \$125.6 million, respectively, of acquisition costs including legal, investment banking and other transaction-related fees, \$254.5 million and \$265.5 million, respectively, of employee severance and acceleration of stock compensation, \$79.2 million and \$89.2 million, respectively, of third-party professional fees and offset by \$56.5 million and \$45.1 million, respectively, of change in fair value of contingent consideration.

5. Results of Discontinued Operations

Following the divestment of the Group's DERMAGRAFT business in January 2014, the operating results associated with the DERMAGRAFT business have been classified as discontinued operations in the Group's Unaudited Consolidated Statements of Operations for all periods presented.

For the three and six months ended June 30, 2017, the Group recorded a loss of \$1.2 million and gain of \$19.0 million (net of tax benefit of \$0.6 million and expense of \$10.9 million), respectively, primarily related to legal contingencies related to the divested DERMAGRAFT business and the release of escrow to Shire, respectively.

In January 2017, Shire entered into a final settlement agreement with the Department of Justice ("DOJ") in the amount of \$350.0 million, plus interest which was accrued in 2016 and paid during the six months ended June 30, 2017.

After the civil settlement with the DOJ had been finalized, Shire and ABH's equity holders entered into a settlement agreement and ABH's equity holders released the \$37.5 million escrow to Shire. Shire released the claims against ABH equity holders upon receiving the entire amount held in escrow.

For a more detailed description of the DERMAGRAFT legal proceedings, refer to Note 25, Legal and Other Proceedings, of Shire's Annual Report and Accounts for the year ended December 31, 2016.

For the three and six months ended June 30, 2016, the Group recorded a loss of \$248.7 million and \$239.2 million (net of tax benefit of \$100.9 million and \$95.4 million), respectively, related to costs associated with the divestment.

6. Accounts Receivable, Net

Accounts receivable as of June 30, 2017 of \$2,755.2 million (December 31, 2016: \$2,616.5 million), are stated at the invoiced amount and net of reserve for discounts and doubtful accounts of \$182.0 million (December 31, 2016: \$169.6 million).

Reserve for discounts and doubtful accounts:

(In millions)	2017	2016
As of January 1,	\$ 169.6	\$ 55.8
Provision charged to operations	600.3	269.6
Payments/credits	(587.9)	(201.0)
As of June 30,	<u>\$ 182.0</u>	<u>\$ 124.4</u>

As of June 30, 2017, accounts receivable included \$99.0 million (December 31, 2016: \$102.2 million) related to royalty receivable.

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7. Inventories

Inventories are stated at the lower of cost and net realizable value. Inventories comprise:

(In millions)	June 30, 2017	December 31, 2016
Finished goods	\$ 947.6	\$ 1,380.0
Work-in-progress	1,672.7	1,491.0
Raw materials	705.0	691.3
	<u>\$ 3,325.3</u>	<u>\$ 3,562.3</u>

For a more detailed description of inventories acquired, refer to Note 2, Business Combinations, to these Unaudited Consolidated Financial Statements.

8. Property, Plant and Equipment, Net

Property, plant and equipment are recorded at historical cost, net of accumulated depreciation. Components of Property, plant and equipment, net are summarized as follows:

(In millions)	June 30, 2017	December 31, 2016
Land	\$ 338.6	\$ 337.9
Buildings and leasehold improvements	1,931.3	1,915.4
Machinery, equipment and other	2,833.1	2,547.2
Assets under construction	2,640.6	2,632.5
Total property, plant and equipment at cost	7,743.6	7,433.0
Less: Accumulated depreciation	(1,189.1)	(963.4)
Property, plant and equipment, net	<u>\$ 6,554.5</u>	<u>\$ 6,469.6</u>

Depreciation expense for the three and six months ended June 30, 2017 was \$120.7 million and \$243.6 million, respectively, and for the three and six months ended June 30, 2016 was \$47.9 million and \$82.2 million, respectively.

During the second quarter of 2017, the Group determined it would divest certain facilities as part of the Group's integration efforts. The Group classified \$74.8 million of property, plant and equipment as held for sale, which is reported in Prepaid expenses and other current assets. The \$74.8 million of property, plant and equipment is net of a \$25.4 million impairment charge reported in Integration and acquisition costs during the second quarter of 2017.

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9. Intangible Assets

The following table summarizes the Group's intangible assets:

(In millions)	Currently marketed products	IPR&D	Other intangible assets	Total
June 30, 2017				
Gross acquired intangible assets	\$ 31,389.2	\$ 5,111.7	\$ 840.3	\$ 37,341.2
Accumulated amortization	(3,644.1)	—	(262.8)	(3,906.9)
Intangible assets, net	<u>\$ 27,745.1</u>	<u>\$ 5,111.7</u>	<u>\$ 577.5</u>	<u>\$ 33,434.3</u>
December 31, 2016				
Gross acquired intangible assets	\$ 31,217.5	\$ 5,746.6	\$ 842.2	\$ 37,806.3
Accumulated amortization	(2,908.6)	—	(200.2)	(3,108.8)
Intangible assets, net	<u>\$ 28,308.9</u>	<u>\$ 5,746.6</u>	<u>\$ 642.0</u>	<u>\$ 34,697.5</u>

Other intangible assets are comprised primarily of royalty rights and other contract rights associated with Baxalta, Dyax and NPS.

The change in the net book value of intangible assets for the six months ended June 30, 2017 and 2016 is shown in the table below:

(In millions)	2017	2016
As of January 1,	\$ 34,697.5	\$ 9,173.3
Acquisitions	(1,398.9)	32,222.2
Amortization charged	(798.1)	(347.6)
Impairment charges	(20.0)	(8.9)
Foreign currency translation	953.8	(148.7)
As of June 30,	<u>\$ 33,434.3</u>	<u>\$ 40,890.3</u>

The decrease in Intangible assets, net during the six months ended June 30, 2017 relates to the measurement period adjustments of the acquisition of Baxalta. For a more detailed description of measurement period adjustments, refer to Note 2, Business Combinations, to these Unaudited Consolidated Financial Statements.

In connection with the acquisition of Baxalta, the Group acquired IP rights related to currently marketed products of \$21,165.0 million, IPR&D assets of \$160.0 million and other contract rights of \$42.2 million. For a more detailed description of this acquisition, refer to Note 2, Business Combinations, to these Unaudited Consolidated Financial Statements.

In connection with the acquisition of Dyax on January 22, 2016, the Group acquired IP rights related to currently marketed products of \$135.0 million, IPR&D assets of \$4,100.0 million and royalty rights of \$425.0 million. For a more detailed description of this acquisition, refer to Note 2, Business Combinations, to these Unaudited Consolidated Financial Statements.

The Group reviews its amortized intangible assets for impairment whenever events or circumstances suggest that their carrying value may not be recoverable. Unamortized intangible assets are reviewed for impairment annually or whenever events or circumstances suggest that their carrying value may not be recoverable.

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Estimated amortization expense can be affected by various factors including future acquisitions, disposals of product rights, regulatory approval and subsequent amortization of acquired IPR&D projects, foreign exchange movements and the technological advancement and regulatory approval of competitor products. The estimated future amortization of acquired intangible assets for the next five years is expected to be as follows:

(In millions)	Anticipated future amortization
2017 (remaining six months)	\$ 955.0
2018	1,882.9
2019	1,659.8
2020	1,562.1
2021	1,528.6
2022	<u>1,500.9</u>

10. Goodwill

The following table provides a roll-forward of the Goodwill balance:

(In millions)	2017	2016
As of January 1,	\$ 17,888.2	\$ 4,147.8
Acquisitions	1,076.2	8,834.3
Foreign currency translation	517.7	(19.7)
As of June 30,	<u>\$ 19,482.1</u>	<u>\$ 12,962.4</u>

The increase in Goodwill during the six months ended June 30, 2017 related to the measurement period adjustments of the acquisition of Baxalta. For a more detailed description of measurement period adjustments, refer to Note 2, Business Combinations, to these Unaudited Consolidated Financial Statements.

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11. Fair Value Measurement

Assets and liabilities that are measured at fair value on a recurring basis

As of June 30, 2017 and December 31, 2016, the following financial assets and liabilities are measured at fair value on a recurring basis using quoted prices in active markets for identical assets (Level 1); significant other observable inputs (Level 2); and significant unobservable inputs (Level 3).

(In millions)	Fair value			
	Total	Level 1	Level 2	Level 3
As of June 30, 2017				
Financial assets:				
Marketable equity securities	\$ 63.8	\$ 63.8	\$ —	\$ —
Marketable debt securities	15.9	3.5	12.4	—
Contingent consideration receivable	9.8	—	—	9.8
Derivative instruments	22.8	—	22.8	—
Total assets	\$ 112.3	\$ 67.3	\$ 35.2	\$ 9.8
Financial liabilities:				
Joint venture net written option	\$ 25.0	\$ —	\$ —	\$ 25.0
Derivative instruments	9.5	—	9.5	—
Contingent consideration payable	1,190.3	—	—	1,190.3
Total liabilities	\$ 1,224.8	\$ —	\$ 9.5	\$ 1,215.3
As of December 31, 2016				
Financial assets:				
Marketable equity securities	\$ 65.8	\$ 65.8	\$ —	\$ —
Marketable debt securities	15.5	3.6	11.9	—
Contingent consideration receivable	15.6	—	—	15.6
Derivative instruments	18.0	—	18.0	—
Total assets	\$ 114.9	\$ 69.4	\$ 29.9	\$ 15.6
Financial liabilities:				
Derivative instruments	\$ 8.3	\$ —	\$ 8.3	\$ —
Contingent consideration payable	1,058.0	—	—	1,058.0
Total liabilities	\$ 1,066.3	\$ —	\$ 8.3	\$ 1,058.0

Marketable equity and debt securities are included within Investments in the Unaudited Consolidated Balance Sheets. Contingent consideration receivable is included within Prepaid expenses and other current assets and Other non-current assets in the Unaudited Consolidated Balance Sheets. Contingent consideration payable is included within Other current liabilities and Other non-current liabilities in the Unaudited Consolidated Balance Sheets. For information regarding the Group's derivative arrangements, refer to Note 12, Financial Instruments, to these Unaudited Consolidated Financial Statements.

Certain estimates and judgments were required to develop the fair value amounts. The estimated fair value amounts shown above are not necessarily indicative of the amounts that the Group would realize upon disposition, nor do they indicate the Group's intent or ability to dispose of the financial instrument.

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The following methods and assumptions were used to estimate the fair value of each material class of financial instrument:

- **Marketable equity securities:** the fair values of marketable equity securities are estimated based on quoted market prices for those investments.
- **Marketable debt securities:** the fair values of debt securities are obtained from pricing services or broker/dealers who either use quoted prices in an active market or proprietary pricing applications, which include observable market information for like or same securities.
- **Contingent consideration receivable:** the fair value of the contingent consideration receivable has been estimated using the income approach (using a probability weighted discounted cash flow method).
- **Derivative instruments:** the fair values of the swap and forward foreign exchange contracts have been determined using the month-end interest rate and foreign exchange rates, respectively.
- **Contingent consideration payable:** the fair value of the contingent consideration payable has been estimated using the income approach (using a probability weighted discounted cash flow method).

Assets and Liabilities Measured at Fair Value on a Recurring Basis Using Significant Unobservable Inputs (Level 3)

The following table provides a roll forward of the fair values of the Group's contingent consideration receivable and payables which include Level 3 measurements:

Contingent consideration receivable

(In millions)

	2017	2016
Balance as of January 1,	\$ 15.6	\$ 13.8
Change in fair value included in earnings	(2.3)	2.1
Other	(3.5)	1.6
Balance as of June 30,	<u>\$ 9.8</u>	<u>\$ 17.5</u>

Contingent consideration payable

(In millions)

	2017	2016
Balance as of January 1,	\$ 1,058.0	\$ 475.9
Acquisitions	(4.0)	562.5
Change in fair value included in earnings	147.7	(45.0)
Other	(11.4)	0.4
Balance as of June 30,	<u>\$ 1,190.3</u>	<u>\$ 993.8</u>

In 2017, the increase in contingent consideration payable was primarily related to the Group's change in fair value of contingent consideration resulting from positive topline data for SHP643. In 2016, the increase in contingent consideration payable was related to the Group's acquisition of Dyax and Baxalta. Other contingent consideration payable primarily relates to foreign currency adjustments.

Of the \$1,190.3 million of contingent consideration payable as of June 30, 2017, \$67.4 million is recorded within Other current liabilities and \$1,122.9 million is recorded within Other non-current liabilities in the Group's Unaudited Consolidated Balance Sheets.

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Joint venture net written option

During the six months ended June 30, 2017, Shire executed option agreements related to a joint venture that provides Shire with a call option on the partner's investment in joint venture equity and the partner with a put option on its investment in joint venture equity. The Group has recorded a liability of \$25.0 million for the net written option based on the estimated fair value of these options as of June 30, 2017 and in the future will re-measure the instrument to fair value through the Consolidated Statements of Operations.

Quantitative Information about Assets and Liabilities Measured at Fair Value on a Recurring Basis Using Significant Unobservable Inputs (Level 3)

Quantitative information about the Group's recurring Level 3 fair value measurements is as follows:

Financial assets: As of June 30, 2017	Fair value as of the measurement date			
(In millions, except %)	Fair value	Valuation technique	Significant unobservable inputs	Range
Contingent consideration receivable	\$ 9.8	Income approach (probability weighted discounted cash	<ul style="list-style-type: none"> • Probability weightings applied to different sales scenarios • Future forecast consideration receivable based on contractual terms with purchaser • Assumed market participant discount rate 	<ul style="list-style-type: none"> • 10 to 90% • \$0 to \$20.7 million • 7.4%

Half-yearly Report

Financial liabilities:

As of June 30, 2017

Fair value as of the measurement date

(In millions, except %)	Fair value	Valuation technique	Significant unobservable inputs	Range
Contingent consideration payable	\$ 1,190.3	Income approach (probability weighted discounted cash	<ul style="list-style-type: none"> Cumulative probability of milestones being achieved Assumed market participant discount rate Periods in which milestones are expected to be achieved Forecast quarterly royalties payable on net sales of relevant products 	<ul style="list-style-type: none"> 5 to 90% 1.8 to 10.5% 2017 to 2037 \$0.1 to \$6.5 million
Joint venture net written option	\$ 25.0	Income approach (probability weighted discounted cash	<ul style="list-style-type: none"> Cash flow scenario probability weighting Assumed market participant discount rate 	<ul style="list-style-type: none"> 0 to 65% 16%

Contingent consideration payable represents future milestones and royalties the Group may be required to pay in conjunction with various business combinations and license agreements. Contingent consideration receivable represents future royalties the Group may be entitled to receive in conjunction with sales and purchase agreements. The fair value of the Group's contingent consideration receivable and payable could significantly increase or decrease due to changes in certain assumptions which underpin the fair value measurements. Each set of assumptions is specific to the individual contingent consideration receivable or payable.

Financial assets and liabilities that are disclosed at fair value

The carrying amounts and estimated fair values as of June 30, 2017 and December 31, 2016 of the Group's financial assets and liabilities that are not measured at fair value on a recurring basis are as follows:

(In millions)	June 30, 2017		December 31, 2016	
	Carrying amount	Fair value	Carrying amount	Fair value
Financial liabilities:				
SAIIDAC notes	\$ 12,044.7	\$ 11,973.6	\$ 12,039.2	\$ 11,633.8
Baxalta notes	5,066.9	5,295.8	5,063.6	5,066.5
Capital lease obligation	350.6	350.6	353.6	353.6

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The estimated fair values of long-term debt were based upon recent observable market prices and are considered Level 2 in the fair value hierarchy. The estimated fair value of capital lease obligations is based on Level 2 inputs.

The carrying amounts of other financial assets and liabilities approximate their estimated fair value due to their short-term nature, such as liquidity and maturity of these amounts, or because there have been no significant changes since the asset or liability was last re-measured to fair value on a non-recurring basis.

12. Financial Instruments

Foreign Currency Contracts

Due to the global nature of its operations, portions of the Group's revenues and operating expenses are recorded in currencies other than the U.S. dollar. The value of revenues and operating expenses measured in U.S. dollars is therefore subject to changes in foreign currency exchange rates. The main trading currencies of the Group are the U.S. dollar, Euro, British pound sterling, Swiss franc, Canadian dollar and Japanese yen.

Transactional exposure arises where transactions occur in currencies different to the functional currency of the relevant subsidiary. It is the Group's policy that these exposures are minimized to the extent practicable by denominating transactions in the subsidiary's functional currency. Where significant exposures remain, the Group uses foreign exchange contracts (spot, forward and swap contracts) to manage the exposure for balance sheet assets and liabilities that are denominated in currencies different to the functional currency of the relevant subsidiary.

The Group has master netting agreements with a number of counterparties to these foreign exchange contracts and on the occurrence of specified events, the Group has the ability to terminate contracts and settle them with a net payment by one party to the other. The Group has elected to present derivative assets and derivative liabilities on a gross basis in the Unaudited Consolidated Balance Sheet. The Group does not have credit risk related contingent features or collateral linked to the derivatives.

Designated Foreign Currency Derivatives

Certain foreign currency forward contracts were designated as cash flow hedges and accordingly, to the extent effective, any unrealized gains or losses on these foreign currency forward contracts were reported in AOCI. Realized gains and losses for the effective portion of such contracts were recognized in revenue or cost of sales when the sale of product in the currency being hedged was recognized. To the extent ineffective, hedge transaction gains and losses were reported in Other income/(expense), net.

The Group did not have any designated foreign currency contracts as of June 30, 2017. As of December 31, 2016 the Group had designated foreign currency forward contracts with a total notional value of \$78.7 million, a maximum duration of six months; the fair value of these contracts was a net asset of \$4.2 million.

The amount of ineffectiveness for the three and six months ended June 30, 2017 was immaterial.

As of June 30, 2017, the Group had a total of \$0.4 million of deferred gains included in AOCI which are expected to be recognized in earnings during the next 12 months, coinciding with when the hedged items are expected to impact earnings.

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Undesignated Foreign Currency Derivatives

The Group uses forward contracts to mitigate the foreign currency risk related to certain balance sheet positions, including intercompany and third-party receivables and payables. The Group has not elected hedge accounting for these derivative instruments as the duration of these contracts is typically three months or less. The changes in fair value of these derivatives are reported in earnings.

The table below presents the notional amount, maximum duration and fair value for the undesignated foreign currency derivatives:

(In millions, except duration)	June 30, 2017	December 31, 2016
Notional amount	\$ 1,495.1	\$ 1,309.1
Maximum duration (in months)	3 months	3 months
Fair value - net asset	\$ 10.9	\$ 6.7

The Group considers the impact of its and its counterparties' credit risk on the fair value of the contracts as well as the ability of each party to execute its contractual obligations. As of June 30, 2017, credit risk did not materially change the fair value of the Group's foreign currency contracts.

Interest Rate Contracts

The Group is exposed to the risk that its earnings and cash flows could be adversely impacted by fluctuations in benchmark interest rates relating to its debt obligations on which interest is set at floating rates. The Group's policy is to manage this risk to an acceptable level. The Group is principally exposed to interest rate risk on any borrowings under the Group's various debt facilities and on part of the senior notes assumed in connection with the acquisition of Baxalta. Interest on each of these debt obligations is set at floating rates, to the extent utilized. Shire's exposure under these facilities is to changes in U.S. dollar interest rates. For further details related to interest rates on the Group's various debt facilities, refer to Note 13, Borrowings and Capital Leases, to these Unaudited Consolidated Financial Statements.

Designated Interest Rate Derivatives

The effective portion of the changes in the fair value of interest rate swap contracts are recorded as a component of the senior notes assumed in connection with the acquisition of Baxalta with the ineffective portion recorded in Interest expense. Any net interest payments made or received on the interest rate swap contracts are recognized as a component of Interest expense in the Unaudited Consolidated Statements of Operations.

The table below presents the notional amount, maturity and fair value for the designated interest rate derivatives:

(In millions, except maturity)	June 30, 2017	December 31, 2016
Notional amount	\$ 1,000.0	\$ 1,000.0
Maturity	June 2020 and June 2025	June 2020 and June 2025
Fair value – net asset/(liability)	\$ 2.4	\$ (1.2)

For the three and six months ended June 30, 2017, the Group recognized losses of \$0.2 million and \$1.4 million, respectively, as ineffectiveness related to these contracts as a component of Interest expense.

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Undesignated Interest Rate Derivatives

As of June 30, 2017 and December 31, 2016, the Group did not have any outstanding undesignated interest rate derivative instruments.

Summary of Derivatives

The following tables summarize the income statement locations and gains and losses on the Group's designated and undesignated derivative instruments:

(In millions)	Loss recognized in OCI		Income Statement location	Gain reclassified from AOCI into income	
	2017	2016		2017	2016
Three months ended June 30,					
<u>Designated derivative instruments</u>					
Cash flow hedges					
Foreign exchange contracts	\$ (0.1)	\$ (3.4)	Cost of sales	\$ 1.7	\$ —

(In millions)	Income Statement location	Gain (loss) recognized in income	
		2017	2016
Three months ended June 30,			
Fair value hedges			
Interest rate contracts, net	Interest (expense)/income	\$ (0.2)	\$ 2.1
<u>Undesignated derivative instruments</u>			
Foreign exchange contracts	Other income/(expense), net	35.9	(4.7)
Interest rate swap contracts	Interest expense	—	(2.6)

(In millions)	Loss recognized in OCI		Income Statement location	Gain reclassified from AOCI into income	
	2017	2016		2017	2016
Six months ended June 30,					
<u>Designated derivative instruments</u>					
Cash flow hedges					
Foreign exchange contracts	\$ (0.7)	\$ (3.4)	Cost of sales	\$ 8.3	\$ —

(In millions)	Income Statement location	Gain (loss) recognized in income	
		2017	2016
Six months ended June 30,			
Fair value hedges			
Interest rate contracts, net	Interest (expense)/income	\$ (1.4)	\$ 2.1
<u>Undesignated derivative instruments</u>			
Foreign exchange contracts	Other income/(expense), net	20.7	(28.8)
Interest rate swap contracts	Interest expense	—	(4.6)

Summary of Derivatives

The following table presents the classification and estimated fair value of derivative instruments:

(In millions)	Asset position			Liability position		
	Balance Sheet location	Fair value		Balance Sheet location	Fair value	
		June 30, 2017	December 31, 2016		June 30, 2017	December 31, 2016
<u>Designated derivative instruments</u>						
Foreign exchange contracts	Prepaid expenses and other current assets	\$ —	\$ 4.3	Accounts payable and accrued expenses	\$ —	\$ 0.1
Interest rate contracts	Long term borrowings	3.2	0.1	Long term borrowings	0.8	1.3
		<u>\$ 3.2</u>	<u>\$ 4.4</u>		<u>\$ 0.8</u>	<u>\$ 1.4</u>
<u>Undesignated derivative instruments</u>						
Foreign exchange forward contracts	Prepaid expenses and other current assets	\$ 19.6	\$ 13.6	Accounts payable and accrued expenses	\$ 8.7	\$ 6.9
Total derivative fair value		<u>\$ 22.8</u>	<u>\$ 18.0</u>		<u>\$ 9.5</u>	<u>\$ 8.3</u>
Potential effect of rights to offset		(3.9)	(1.7)		(3.9)	(1.7)
Net derivative		<u>\$ 18.9</u>	<u>\$ 16.3</u>		<u>\$ 5.6</u>	<u>\$ 6.6</u>

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13. Borrowings and Capital Leases

(In millions)	June 30, 2017	December 31, 2016
Short term borrowings:		
Baxalta notes (short term portion)	\$ 747.6	\$ —
Borrowings under the Revolving Credit Facilities Agreement	735.0	450.0
Borrowings under the November 2015 Facilities Agreement	1,696.9	2,594.8
Capital leases (short term portion)	6.8	6.4
Other borrowings (short term portion)	18.6	16.8
	<u>\$ 3,204.9</u>	<u>\$ 3,068.0</u>
Long term borrowings:		
SAIIDAC notes	\$ 12,044.7	\$ 12,039.2
Baxalta notes (long term portion)	4,319.3	5,063.6
Borrowings under the November 2015 Facilities Agreement	1,595.0	2,391.8
Capital leases (long term portion)	343.8	347.2
Other borrowings (long term portion)	52.3	58.0
	<u>\$ 18,355.1</u>	<u>\$ 19,899.8</u>
Total borrowings and capital leases	<u>\$ 21,560.0</u>	<u>\$ 22,967.8</u>

For a more detailed description of the Group's financing agreements, refer below and to Note 17, Borrowings and Capital Lease Obligations, of Shire's Annual Report and Accounts for the year ended December 31, 2016.

SAIIDAC Notes

On September 23, 2016, Shire Acquisitions Investments Ireland Designated Activity Company ("SAIIDAC"), a wholly owned subsidiary of Shire plc, issued unsecured senior notes with a total aggregate principal value of \$12.1 billion ("SAIIDAC Notes"), guaranteed by Shire plc and, as of December 1, 2016, by Baxalta. Below is a summary of the SAIIDAC Notes as of June 30, 2017:

(In millions, except %)	Aggregate amount	Coupon rate	Effective interest rate in 2017	Carrying amount as of June 30, 2017
Fixed-rate notes due 2019	\$ 3,300.0	1.900%	2.05%	3,289.7
Fixed-rate notes due 2021	3,300.0	2.400%	2.53%	3,284.7
Fixed-rate notes due 2023	2,500.0	2.875%	2.97%	2,488.7
Fixed-rate notes due 2026	3,000.0	3.200%	3.30%	2,981.6
	<u>\$ 12,100.0</u>			<u>\$ 12,044.7</u>

As of June 30, 2017, there was \$55.3 million of debt issuance costs and discount recorded as a reduction of the carrying amount of debt. These costs will be amortized as additional interest expense using the effective interest rate method over the period from issuance through maturity. For further details on the SAIIDAC Notes, refer to Note 17, Borrowings and Capital Lease Obligations, of Shire's Annual Report and Accounts for the year ended December 31, 2016.

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Baxalta Notes

Shire plc guaranteed senior notes issued by Baxalta with a total aggregate principal amount of \$5.0 billion in connection with the acquisition of Baxalta (“Baxalta Notes”). Below is a summary of the Baxalta Notes as of June 30, 2017:

(In millions, except %)	Aggregate principal	Coupon rate	Effective interest rate in 2017	Carrying amount as of June 30, 2017
Variable-rate notes due 2018	\$ 375.0	LIBOR plus 0.78%	2.50%	\$ 372.7
Fixed-rate notes due 2018	375.0	2.000%	2.10%	374.9
Fixed-rate notes due 2020	1,000.0	2.875%	2.80%	1,005.1
Fixed-rate notes due 2022	500.0	3.600%	3.30%	507.6
Fixed-rate notes due 2025	1,750.0	4.000%	3.90%	1,775.4
Fixed-rate notes due 2045	1,000.0	5.250%	5.20%	1,031.2
Total assumed Senior Notes	\$ 5,000.0			\$ 5,066.9

The effective interest rates above exclude the effect of any related interest rate swaps. The book values above include any premiums and adjustments related to hedging instruments. For further details related to the interest rate derivative contracts, please see Note 12, Financial Instruments, to these Unaudited Consolidated Financial Statements.

Revolving Credit Facilities Agreement

On December 12, 2014, Shire entered into a \$2.1 billion revolving credit facilities agreement (the “RCF”) with a number of financial institutions. As of June 30, 2017, the Group utilized \$735.0 million of the RCF. The RCF, which terminates on December 12, 2021, may be used for financing the general corporate purposes of Shire. The RCF incorporates a \$250.0 million U.S. dollar and Euro swingline facility operating as a sub-limit thereof.

Term Loan Facilities Agreements

November 2015 Facilities Agreement

On November 2, 2015, Shire entered into a \$5.6 billion facilities agreement (the “November 2015 Facilities Agreement”), which is comprised of three amortizing credit facilities with the following amounts outstanding as of June 30, 2017, and their respective ultimate maturity dates:

(In millions)	Amount outstanding	Maturity
November 2015 Facility A	\$ 400.0	November 2, 2017
November 2015 Facility B	500.0	November 2, 2017
November 2015 Facility C	2,400.0	November 2, 2018
Total November 2015 Facilities	\$ 3,300.0	

For the six month period ended June 30, 2017, the Group made \$1.7 billion of scheduled and advance repayments under the November 2015 Facility B; consequently, \$3.3 billion is outstanding as of June 30, 2017.

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Short-term uncommitted lines of credit (“Credit lines”)

Shire has access to various Credit lines from a number of banks which are available to be utilized from time to time to provide short-term cash management flexibility. These Credit lines can be withdrawn by the banks at any time. The Credit lines are not relied upon for core liquidity. As of June 30, 2017, these Credit lines were not utilized.

Capital Lease Obligations

The capital leases are primarily related to office and manufacturing facilities. As of June 30, 2017, the total capital lease obligations, including current portions, were \$350.6 million.

14. Retirement and Other Benefit Programs

The Group sponsors various pension and other post-employment benefit (“OPEB”) plans in the U.S. and other countries. The net periodic benefit cost associated with these plans consisted of the following components:

(In millions)	Three months ended June 30,					
	2017			2016		
	U.S. pensions	International pensions	OPEB (U.S.)	U.S. pensions	International pensions	OPEB (U.S.)
Net periodic benefit cost						
Service cost	\$ 3.7	\$ 9.4	\$ 0.4	\$ 1.9	\$ 2.6	\$ 0.1
Interest cost	3.9	1.2	0.3	1.6	0.4	0.1
Expected return on plan assets	(4.0)	(1.8)	—	(1.3)	(0.5)	—
Net periodic benefit cost	\$ 3.6	\$ 8.8	\$ 0.7	\$ 2.2	\$ 2.5	\$ 0.2

(In millions)	Six months ended June 30,					
	2017			2016		
	U.S. pensions	International pensions	OPEB (U.S.)	U.S. pensions	International pensions	OPEB (U.S.)
Net periodic benefit cost						
Service cost	\$ 7.4	\$ 18.8	\$ 0.8	\$ 1.9	\$ 2.6	\$ 0.1
Interest cost	7.8	2.4	0.6	1.6	0.4	0.1
Expected return on plan assets	(8.0)	(3.6)	—	(1.3)	(0.5)	—
Amortization of actuarial losses	—	0.9	—	—	—	—
Net periodic benefit cost	\$ 7.2	\$ 18.5	\$ 1.4	\$ 2.2	\$ 2.5	\$ 0.2

The majority of the Group's pension and OPEB plans were assumed with the acquisition of Baxalta on June 3, 2016.

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15. Accumulated Other Comprehensive Income/(Loss)

The changes in accumulated other comprehensive income/(loss) ("AOCI"), net of their related tax effects, for the six months ended June 30, 2017 and 2016 are included below:

(In millions)	Foreign currency translation adjustment	Pension and other employee benefits	Unrealized holding gain/(loss) on available- for-sale securities	Hedging activities	Accumulated other comprehensive (loss)/income
As of January 1, 2017	\$ (1,505.4)	\$ (5.2)	\$ 6.6	\$ 6.4	\$ (1,497.6)
Other comprehensive income/(loss) before reclassifications	1,696.5	9.7	(2.3)	(0.5)	1,703.4
Amounts reclassified from AOCI	—	0.9	(1.2)	(5.4)	(5.7)
Net current period other comprehensive income / (loss)	1,696.5	10.6	(3.5)	(5.9)	1,697.7
As of June 30, 2017	\$ 191.1	\$ 5.4	\$ 3.1	\$ 0.5	\$ 200.1

(In millions)	Foreign currency translation adjustment	Pension and other employee benefits	Unrealized holding loss on available- for-sale securities	Hedging activities	Accumulated other comprehensive loss
As of January 1, 2016	\$ (182.1)	\$ —	\$ (1.7)	\$ —	\$ (183.8)
Net current period other comprehensive loss	(195.5)	—	(4.7)	(1.8)	(202.0)
As of June 30, 2016	\$ (377.6)	\$ —	\$ (6.4)	\$ (1.8)	\$ (385.8)

Reclassifications from AOCI to net income/loss during the three and six months ended June 30, 2017 and 2016 were not material.

16. Taxation

For the three and six months ended June 30, 2017, the effective tax rate on income from continuing operations was 9% (2016: -427%) and 5% (2016: 2%), respectively.

The effective tax rate for the three and six months ended June 30, 2017 was affected by the combined impact of the relative quantum of the profit before tax for the period by jurisdiction as well as significant acquisition and integration costs.

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The effective tax rate for the three and six months ended June 30, 2016 was affected by the combined impact of the relative quantum of the profit before tax for the period by jurisdiction and of the reversal of deferred tax liabilities from the acquisition of Baxalta (including in higher tax territories such as the U.S.) of inventory and intangible assets amortization as well as significant acquisition and integration costs.

17. Earnings Per Share

The following table reconciles net income and loss and the weighted average ordinary shares outstanding for basic and diluted earnings per share ("EPS") for the periods presented:

(In millions)	Three months ended June 30,		Six months ended June 30,	
	2017	2016	2017	2016
Income from continuing operations, net of taxes	\$ 241.5	\$ 86.6	\$ 596.3	\$ 496.1
(Loss)/gain from discontinued operations, net of taxes	(1.2)	(248.7)	19.0	(239.2)
Numerator for basic and diluted earnings per share	\$ 240.3	\$ (162.1)	\$ 615.3	\$ 256.9
Weighted average number of shares:				
Basic	906.4	682.8	905.3	637.3
Effect of dilutive shares:				
Share-based awards to employees	6.3	—	7.0	2.8
Diluted	912.7	682.8	912.3	640.1

Weighted average number of basic shares excludes shares purchased by the Employee Benefit Trust and those under the shares buy-back program, which are both presented by Shire as treasury stock. Share-based awards to employees are calculated using the treasury method.

The share equivalents not included in the calculation of the diluted weighted average number of shares are shown below:

(Number of shares in millions)	Three months ended June 30,		Six months ended June 30,	
	2017	2016	2017	2016
Share-based awards to employees	13.2	8.3	10.3	4.4

Certain stock options have been excluded from the calculation of diluted EPS for the three and six months ended June 30, 2017 and 2016 because either their exercise prices exceeded Shire's average share price during the calculation period, the required performance conditions were not satisfied as of the balance sheet date or their inclusion would have been antidilutive.

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18. Share-based Compensation Plans

Total share-based compensation recorded by the Group during the three and six months ended June 30, 2017 and 2016 by line item is as follows:

(In millions)	Three months ended June 30,		Six months ended June 30,	
	2017	2016	2017	2016
Cost of sales	\$ 6.1	\$ 4.5	\$ 12.7	\$ 7.6
Research and development	9.7	13.6	19.7	25.2
Selling, general and administrative	31.9	14.4	63.2	23.6
Integration and acquisition costs	6.0	144.0	10.8	138.4
Total	53.7	176.5	106.4	194.8
Less tax	(29.6)	(41.5)	(42.7)	(46.3)
	\$ 24.1	\$ 135.0	\$ 63.7	\$ 148.5

The table above includes pre-tax expense related to replacement and other awards held by Baxalta employees. This includes integration related expense during the three and six months ended June 30, 2017 from the acceleration of unrecognized expense associated with certain employee terminations.

For further details on existing share-based compensation plans, refer to Note 27, Share-based Compensation Plans, of Shire's Annual Report and Accounts for the year ended December 31, 2016.

The Group made immaterial equity compensation grants to employees during the three months ended June 30, 2017. During the six months ended June 30, 2017, the Group made equity compensation grants to employees consisting of 8.9 million of stock-settled share appreciation rights ("SARs"), 2.1 million of restricted stock units ("RSUs") and 0.5 million of performance share units ("PSUs") equivalent in ordinary shares.

19. Commitments and Contingencies

Leases

The Group leases land, facilities, motor vehicles and certain equipment under operating leases expiring through 2039. For the three and six months ended June 30, 2017, lease and rental expense totaled \$42.4 million and \$85.0 million (2016: \$22.8 million and \$30.3 million, respectively), which is predominantly included in Cost of sales and Selling, general and administrative expenses in the Group's Unaudited Consolidated Statements of Operations.

Letters of credit and guarantees

As of June 30, 2017 and December 31, 2016, the Group had irrevocable standby letters of credit and guarantees with various banks and insurance companies totaling \$190.1 million and \$139.7 million (being the contractual amounts), respectively, providing security for the Group's performance of various obligations. These obligations are primarily in respect of the recoverability of insurance claims, lease obligations and supply commitments.

Commitments

Clinical testing

As of June 30, 2017, the Group had committed to pay approximately \$1,108.3 million (December 31, 2016: \$1,037.4 million) to contract vendors for administering and executing clinical trials. The timing of these payments is dependent upon actual services performed by the organizations as determined by patient enrollment levels and related activities.

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Contract manufacturing

As of June 30, 2017, the Group had committed to pay approximately \$458.3 million (December 31, 2016: \$528.9 million) in respect of contract manufacturing. The Group expects to pay \$190.3 million of these commitments in 2017.

Other purchasing commitments

As of June 30, 2017, the Group had committed to pay approximately \$1,774.4 million (December 31, 2016: \$1,745.4 million) for future purchases of goods and services, predominantly relating to active pharmaceutical ingredients sourcing. The Group expects to pay \$876.8 million of these commitments in 2017.

Investment commitments

As of June 30, 2017, the Group had outstanding commitments to purchase common stock and interests in companies and partnerships, respectively, for amounts totaling \$58.5 million (December 31, 2016: \$76.4 million) which may all be payable in 2017, depending on the timing of capital calls. The investment commitments include additional funding to certain variable interest entities ("VIEs") for which Shire is not the primary beneficiary.

Capital commitments

As of June 30, 2017, the Group had committed to spend \$136.4 million (December 31, 2016: \$100.5 million) on capital projects.

Baxter related tax indemnification

Baxter International Inc. ("Baxter") and Baxalta entered into a tax matters agreement, effective on the date of Baxalta's separation from Baxter, which employs a direct tracing approach, or where direct tracing approach is not feasible, an allocation methodology, to determine which company is liable for pre-separation income tax items for U.S. federal, state and foreign jurisdictions. With respect to tax liabilities that are directly traceable or allocated to Baxalta but for which Baxalta was not the primary obligor, Baxalta recorded a tax indemnification amount that would be due to Baxter upon Baxter discharging the associated tax liability to the taxing authority. As of June 30, 2017, the amount of the net tax indemnification amount was \$25.5 million.

20. Legal and Other Proceedings

The Group expenses legal costs when incurred.

The Group recognizes loss contingency provisions for probable losses when management is able to reasonably estimate the loss. When the estimated loss lies within a range, the Group records a loss contingency provision based on its best estimate of the probable loss. If no particular amount within that range is a better estimate than any other amount, the minimum amount is recorded. Estimates of losses may be developed before the ultimate loss is known, and are therefore refined each accounting period as additional information becomes known. An outcome that deviates from the Group's estimate may result in an additional expense or release in a future accounting period. As of June 30, 2017, provision for litigation losses, insurance claims and other disputes totaled \$64.0 million (December 31, 2016: \$415.0 million).

The Group's principal pending legal and other proceedings are disclosed below. The outcomes of these proceedings are not always predictable and can be affected by various factors. For those legal and other proceedings for which it is considered at least reasonably possible that a loss has been incurred, the Group discloses the possible loss or range of possible loss in excess of the recorded loss contingency provision, if any, where such excess is both material and estimable.

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LIALDA

In May 2010, Shire was notified that Zydus Pharmaceuticals USA, Inc. (“Zydus”) had submitted an ANDA under the Hatch-Waxman Act seeking permission to market a generic version of LIALDA. Within the requisite 45-day period, Shire filed a lawsuit in the U.S. District Court for the District of Delaware against Zydus and Cadila Healthcare Limited, doing business as Zydus Cadila. A Markman hearing took place on January 29, 2015 and a Markman ruling was issued on July 28, 2015. A trial took place between March 28, 2016 and April 1, 2016. On September 16, 2016 the court issued its ruling finding that the proposed generic product would not infringe the asserted claims. Shire appealed the ruling to the Court of Appeals for the Federal Circuit (“CAFC”). On May 9, 2017, the CAFC affirmed the ruling of the district court.

In February 2012, Shire was notified that Osmotica Pharmaceutical Corporation (“Osmotica”) had submitted an ANDA under the Hatch-Waxman Act seeking permission to market a generic version of LIALDA. Within the requisite 45-day period, Shire filed a lawsuit in the U.S. District Court for the Northern District of Georgia against Osmotica. A Markman hearing took place on August 22, 2013 and a Markman ruling was issued on September 25, 2014. The court issued an Order on February 27, 2015 in which all dates in the scheduling order have been stayed.

In March 2012, Shire was notified that Watson Laboratories Inc.-Florida had submitted an ANDA under the Hatch-Waxman Act seeking permission to market a generic version of LIALDA. Within the requisite 45-day period, Shire filed a lawsuit in the U.S. District Court for the Southern District of Florida against Watson Laboratories Inc.-Florida and Watson Pharmaceuticals, Inc., Watson Pharma, Inc. and Watson Laboratories, Inc. (collectively, “Watson”) were subsequently added as defendants. A trial took place in April 2013 and on May 9, 2013 the trial court issued a decision finding that the proposed generic product infringes the patent-in-suit and that the patent is not invalid. Watson appealed the trial court’s ruling to the CAFC and a hearing took place on December 2, 2013. The ruling of the CAFC was issued on March 28, 2014 overruling the trial court on the interpretation of two claim terms and remanding the case for further proceedings. Shire petitioned the Supreme Court for a writ of certiorari which was granted on January 26, 2015. The Supreme Court also vacated the CAFC decision and remanded the case to the CAFC for further consideration in light of the Supreme Court’s recent decision in *Teva v. Sandoz*. On June 3, 2015, the CAFC reaffirmed their previous decision to reverse the District Court’s claims construction and remanded the case to the U.S. District Court for the Southern District of Florida. A trial was held on January 25-27, 2016. A ruling was issued on March 28, 2016 upholding the validity of the patent and finding that Watson’s proposed ANDA product infringes the patent-in-suit. Watson appealed the ruling to the CAFC and oral argument took place on October 5, 2016. The CAFC issued a ruling on February 10, 2017 reversing the trial court’s ruling of infringement and remanding the case to the lower court for entry of a ruling of non-infringement. On May 18, 2017, the lower court entered judgment of non-infringement.

In April 2012, Shire was notified that Mylan had submitted an ANDA under the Hatch-Waxman Act seeking permission to market a generic version of LIALDA. Within the requisite 45-day period, Shire filed a lawsuit in the U.S. District Court for the Middle District of Florida against Mylan. A Markman hearing took place on December 22, 2014. A Markman ruling was issued on March 23, 2015. Following a four-day bench trial in September 2016 in the U.S. District Court for the Middle District of Florida, the court handed down a ruling that Mylan’s proposed generic version of LIALDA infringes claims 1 and 3 of the Orange Book listed patent for LIALDA. In connection with this finding of infringement, the court also entered an injunction prohibiting Mylan from making, using, selling, offering for sale and/or importing their proposed ANDA product before the expiration of the patent (June 8, 2020) and requiring that the approval date for their ANDA be on or after the expiration of the patent. On June 14, 2017, the U.S. District Court for the Middle District of Florida granted Mylan’s Motion for Reconsideration and entered judgment of non-infringement. Shire filed an appeal on July 7, 2017.

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In March 2015, Shire was notified that Amneal had submitted an ANDA under the Hatch-Waxman Act seeking permission to market a generic version of LIALDA. Within the requisite 45 day period, Shire filed a lawsuit in the U.S. District Court for the District of New Jersey against Amneal, Amneal Pharmaceuticals of New York, LLC and Amneal Pharmaceuticals Co. India Pvt. Ltd. A Markman hearing took place on July 25, 2016. A Markman ruling was issued on August 2, 2016. No trial date has been set.

In September 2015, Shire was notified that Lupin Ltd. had submitted an ANDA under the Hatch-Waxman Act seeking permission to market a generic version of LIALDA. Within the requisite 45 day period, Shire filed a lawsuit in the U.S. District Court for the District of Maryland against Lupin Ltd., Lupin Pharmaceuticals Inc., Lupin Inc. and Lupin Atlantis Holdings SA. A Markman hearing originally scheduled to take place on November 10, 2016, was cancelled and has not yet been rescheduled. No trial date has been set.

VANCOGIN

On April 6, 2012, ViroPharma Incorporated (“ViroPharma”) received a notification that the United States Federal Trade Commission (“FTC”) was conducting an investigation into whether ViroPharma had engaged in unfair methods of competition with respect to VANCOGIN which Shire acquired in January 2014. Following the divestiture of VANCOGIN in August 2014, Shire retained certain liabilities including any potential liabilities related to the VANCOGIN citizen petition.

On August 3, 2012, and September 8, 2014, ViroPharma and Shire respectively received Civil Investigative Demands from the FTC requesting additional information related to this matter. Shire has fully cooperated with the FTC’s investigation.

On February 7, 2017, the FTC filed a Complaint against Shire alleging that ViroPharma engaged in conduct in violation of U.S. antitrust laws arising from a citizen petition ViroPharma filed in 2006 related to Food & Drug Administration’s policy for evaluating bioequivalence for generic versions of VANCOGIN. The complaint seeks equitable relief, including an injunction and disgorgement. The Group filed a motion to dismiss on April 10, 2017.

At this time, Shire is unable to predict the outcome or duration of this case.

ELAPRASE

On September 24, 2014, Shire’s Brazilian affiliate, Shire Farmaceutica Brasil Ltda, was served with a lawsuit brought by the State of Sao Paulo and in which the Brazilian Public Attorney’s office has intervened alleging that Shire is obligated to provide certain medical care including ELAPRASE for an indefinite period at no cost to patients who participated in ELAPRASE clinical trials in Brazil, and seeking recoupment to the Brazilian government for amounts paid on behalf of these patients to date, and moral damages associated with these claims.

On May 6, 2016, the trial court judge ruled on the case and dismissed all the claims under the class action, which was appealed. On February 20, 2017, the Court of Appeals in Sao Paulo issued the final decision on merit in favor of Shire and dismissed all the claims under the class action. The final decision can be appealed through the Superior Court of Justice or through the Supreme Court; however, the likelihood of one of those courts accepting the appeal is remote.

21. Agreements and Transactions with Baxter

In connection with Baxalta’s separation from Baxter on July 1, 2015, Baxalta and Baxter entered into several separation-related agreements that provided a framework for Baxalta’s relationship with Baxter after the separation. These agreements, among others, included a manufacturing and supply agreement, a transition services agreement and a tax matters agreement. For further details on existing agreements with Baxter, refer to Note 28, Agreements and Transactions with Baxter, of Shire’s Annual Report and Accounts for the year ended December 31, 2016.

The Group reported revenues associated with the manufacturing and supply agreement with Baxter during the three and six months ended June 30, 2017 of approximately \$30.4 million and \$70.7 million, respectively, and approximately

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\$16.0 million during both the three and six months ended June 30, 2016. The Group reported Selling, general and administrative expenses associated with the transition services agreement with Baxter during the three and six months ended June 30, 2017 of approximately \$14.8 million and \$33.7 million, respectively, and approximately \$8.4 million during both the three and six months ended June 30, 2016. Net tax-related indemnification liabilities as of June 30, 2017 associated with the tax matters agreement with Baxter are discussed in Note 19, Commitments and Contingencies, of these Unaudited Consolidated Financial Statements.

As of June 30, 2017, the Group had total amounts due from or to Baxter of \$72.5 million reported in Prepaid expenses and other current assets, \$33.6 million reported in Other non-current assets, \$59.2 million reported in Other current liabilities and \$59.6 million reported in Other non-current liabilities.

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22. Segment Reporting

Shire operates as one operating and reportable segment engaged in the research, development, licensing, manufacturing, marketing, distribution and sale of innovative specialist medicines to meet significant unmet patient needs.

In the periods set out below, revenues by major product were as follows:

(In millions)	Three months ended		Six months ended	
	June 30, 2017	June 30, 2016	June 30, 2017	June 30, 2016
Product sales:				
HEMOPHILIA	\$ 743.9	\$ 275.6	\$ 1,394.3	\$ 275.6
INHIBITOR THERAPIES	220.7	74.0	441.2	74.0
Hematology total	964.6	349.6	1,835.5	349.6
CINRYZE	175.9	173.0	401.8	337.2
ELAPRASE	161.0	154.0	301.6	277.6
FIRAZYR	137.4	136.7	265.9	265.0
REPLAGAL	122.1	118.4	231.8	221.6
VPRIV	87.9	88.0	167.7	171.6
KALBITOR	20.6	17.7	32.3	28.1
Genetic Diseases total	704.9	687.8	1,401.1	1,301.1
IMMUNOGLOBULIN THERAPIES	510.5	138.2	1,008.8	138.2
BIO THERAPEUTICS	172.2	51.3	350.1	51.3
Immunology total	682.7	189.5	1,358.9	189.5
VYVANSE	518.2	517.7	1,081.9	1,026.9
ADDERALL XR	71.4	101.8	136.3	200.6
MYDAYIS	15.7	—	15.7	—
Other Neuroscience	30.1	35.7	54.8	57.8
Neuroscience total	635.4	655.2	1,288.7	1,285.3
LIALDA/MEZAVANT	207.8	193.7	382.9	361.7
PENTASA	83.3	72.9	152.4	136.9
GATTEX/REVESTIVE	75.3	44.5	144.3	96.2
NATPARA	34.5	19.9	64.2	35.5
Other Internal Medicine	83.4	88.7	159.3	173.3
Internal Medicine total	484.3	419.7	903.1	803.6
Oncology total	62.5	20.3	120.8	20.3
Ophthalmology total	57.4	—	96.0	—
Total Product sales	3,591.8	2,322.1	7,004.1	3,949.4
Royalties and other revenues:				
SENSIPAR royalties	46.4	35.6	85.3	73.5
ADDERALL XR royalties	13.4	5.2	25.9	11.0
FOSRENOL royalties	12.1	11.4	20.7	20.6
3TC and ZEFFIX royalties	8.2	12.1	22.7	27.1
Other royalties and revenues	73.9	42.7	159.4	56.8
Total Royalties and other revenues	154.0	107.0	314.0	189.0
Total Revenues	\$ 3,745.8	\$ 2,429.1	\$ 7,318.1	\$ 4,138.4

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23. Subsequent Events

As part of the Board's ongoing commitment to optimize Shire's portfolio and strategic focus, Shire is assessing strategic options for its Neuroscience franchise. These options may include the independent public listing of the Neuroscience franchise. Shire intends to complete this strategic review by year end.

On July 18, 2017, Shire entered into a licensing agreement with Novimmune S.A. ("Novimmune"). The license grants Shire exclusive worldwide rights to develop and commercialize a bi-specific antibody in pre-clinical development for the treatment of hemophilia A and hemophilia A patients with inhibitors. Under the terms of the agreement, Shire will develop, and if approved, commercialize the product. Shire made an initial \$5.0 million upfront license payment. Novimmune will be entitled to receive additional potential milestone payments up to \$335.0 million based on clinical, regulatory and commercial milestones and single-digit royalties.

Independent Review Report to Shire plc

We have been engaged by Shire plc to review the condensed set of financial statements for Shire plc and its subsidiaries (the “Group”) in the half-yearly financial report for the six months ended June 30, 2017 which comprises the consolidated balance sheets, consolidated statements of operations, consolidated statements of comprehensive income, consolidated statement of changes in equity, consolidated statements of cash flows and related notes 1 to 23. We have read the other information contained in the half-yearly financial report and considered whether it contains any apparent misstatements or material inconsistencies with the information in the condensed set of financial statements.

This report is made solely to the group in accordance with International Standard on Review Engagements (UK and Ireland) 2410 “Review of Interim Financial Information Performed by the Independent Auditor of the Entity” issued by the Auditing Practices Board. Our work has been undertaken so that we might state to the group those matters we are required to state to it in an independent review report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the group, for our review work, for this report, or for the conclusions we have formed.

Directors’ responsibilities

The half-yearly financial report is the responsibility of, and has been approved by, the directors. The directors are responsible for preparing the half-yearly financial report in accordance with the Disclosure Guidance and Transparency Rules of the United Kingdom’s Financial Conduct Authority.

As disclosed in note 1, the annual financial statements of the Group are prepared in accordance with accounting principles generally accepted in the United States of America (“U.S. GAAP”). The condensed set of financial statements included in this half-yearly financial report has been prepared in accordance with the accounting policies the Group intends to use in preparing its next financial statements.

Our responsibility

Our responsibility is to express to the Group a conclusion on the condensed set of financial statements in the half-yearly financial report based on our review.

Scope of review

We conducted our review in accordance with International Standard on Review Engagements (UK and Ireland) 2410 “Review of Interim Financial Information Performed by the Independent Auditor of the Entity” issued by the Auditing Practices Board for use in the United Kingdom. A review of interim financial information consists of making inquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with International Standards on Auditing (UK and Ireland) and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

Conclusion

Based on our review, nothing has come to our attention that causes us to believe that the condensed set of financial statements in the half-yearly financial report for the six months ended June 30, 2017 is not prepared, in all material respects, in accordance with U.S. GAAP and the Disclosure Guidance and Transparency Rules of the United Kingdom’s Financial Conduct Authority.

Deloitte LLP
London, United Kingdom
August 3, 2017