

MAP Pharmaceuticals, Inc.
Form 424B5
August 06, 2009
Table of Contents

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

Filed Pursuant to Rule 424(b)(5)
Registration No. 333-157339

Subject to Completion, Dated August 5, 2009

Preliminary Prospectus Supplement (to Prospectus Dated April 16, 2009)

MAP Pharmaceuticals, Inc.

3,500,000 Shares

Common Stock

We are offering 3,500,000 shares of our common stock.

Our common stock is listed on The Nasdaq Global Market under the symbol MAPP. The last reported sales price of our common stock on August 4, 2009 was \$9.80 per share.

We have granted the underwriters a 30-day option to purchase a maximum of 500,000 additional shares of common stock solely to cover over-allotments.

Investing in our common stock involves risks. See Risk Factors on page S-4 of this prospectus supplement.

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

	Per Share	Total
Offering price	\$	\$
Underwriting discounts and commissions	\$	\$
Proceeds, before expenses, to us	\$	\$

The underwriters expect to deliver the common stock on or about August , 2009 only in book-entry form through the facilities of The Depository Trust Company.

Deutsche Bank Securities

Leerink Swann

The date of this prospectus supplement is August , 2009.

Table of Contents

TABLE OF CONTENTS

Prospectus Supplement

	Page
<u>ABOUT THIS PROSPECTUS SUPPLEMENT</u>	S-ii
<u>SUMMARY</u>	S-1
<u>FORWARD-LOOKING STATEMENTS</u>	S-3
<u>RISK FACTORS</u>	S-4
<u>USE OF PROCEEDS</u>	S-28
<u>PRICE RANGE OF COMMON STOCK</u>	S-28
<u>DILUTION</u>	S-28
<u>DIVIDEND POLICY</u>	S-29
<u>CAPITALIZATION</u>	S-30
<u>DESCRIPTION OF COMMON STOCK</u>	S-31
<u>CERTAIN MATERIAL UNITED STATES FEDERAL INCOME TAX CONSEQUENCES TO NON-U.S. HOLDERS</u>	S-33
<u>UNDERWRITING</u>	S-36
<u>VALIDITY OF THE SECURITIES</u>	S-40
<u>EXPERTS</u>	S-40
<u>WHERE YOU CAN FIND MORE INFORMATION</u>	S-40

Prospectus

<u>ABOUT THIS PROSPECTUS</u>	ii
<u>FORWARD LOOKING STATEMENTS</u>	ii
<u>WHERE YOU CAN FIND MORE INFORMATION</u>	ii
<u>MAP PHARMACEUTICALS, INC.</u>	1
<u>RISK FACTORS</u>	1
<u>USE OF PROCEEDS</u>	1
<u>RATIO OF EARNINGS TO FIXED CHARGES</u>	2
<u>DESCRIPTION OF DEBT SECURITIES</u>	3
<u>DESCRIPTION OF CAPITAL STOCK</u>	9
<u>DESCRIPTION OF WARRANTS</u>	14
<u>PLAN OF DISTRIBUTION</u>	16
<u>EXPERTS</u>	16
<u>VALIDITY OF THE SECURITIES</u>	16

Table of Contents

ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying prospectus are part of a registration statement that we filed with the Securities and Exchange Commission (the SEC) using a shelf registration process. Both this prospectus supplement and the accompanying prospectus include or incorporate by reference important information about us, our common stock and other information you should know before investing. You should read both this prospectus supplement and the accompanying prospectus as well as additional information described under *Where You Can Find More Information* elsewhere in this prospectus supplement.

You should rely only on the information contained or incorporated by reference in this prospectus supplement and the accompanying prospectus. We have not authorized anyone to provide you with information that is different. This prospectus supplement and the accompanying prospectus do not constitute an offer to sell or a solicitation of an offer to buy by anyone in any jurisdiction in which such offer or solicitation is not authorized, or in which the person is not qualified to do so or to any person to whom it is unlawful to make such offer or solicitation. Neither the delivery of this prospectus supplement and the accompanying prospectus nor any sale hereunder shall, under any circumstances, create any implication that there has been no change in our affairs since the date of this prospectus supplement, that the information contained herein is correct as of any time subsequent to the date hereof or that any information incorporated or deemed to be incorporated by reference herein is correct as of any time subsequent to the date hereof.

This prospectus supplement may add to, update or change the information in the accompanying prospectus. If information in this prospectus supplement is inconsistent with information in the accompanying prospectus, this prospectus supplement will apply and will supersede that information in the accompanying prospectus.

Information contained on our website does not constitute part of this prospectus supplement.

Unless the context indicates otherwise, references in this prospectus supplement to MAP Pharmaceuticals, we, us, and our and company refer to MAP Pharmaceuticals, Inc., its predecessors and its consolidated subsidiaries.

Table of Contents

SUMMARY

The following summary includes basic information about our company and this offering. It may not contain all of the information that is important to you. For a more complete understanding of our company and this offering, we encourage you to read this entire prospectus supplement, including the documents incorporated in this prospectus supplement by reference.

The Company

Our goal is to use our proprietary inhalation technologies to enhance the therapeutic benefits and commercial attractiveness of proven drugs while minimizing risk by capitalizing on their known safety, efficacy and commercialization history. We have proprietary product candidates in the clinical development stage that address large market opportunities, including our most advanced product candidate, LEVADEX, formerly known as MAP0004, our proprietary orally inhaled version of dihydroergotamine for the potential treatment of migraine. LEVADEX is designed to provide faster onset and longer lasting pain relief than triptans, the class of drugs most often prescribed for treating migraine.

For our LEVADEX migraine program, we initiated a Phase 3 clinical program in July 2008 pursuant to a special protocol assessment, or SPA, from the U.S. Food and Drug Administration, or FDA. In May 2009, we announced results of the efficacy portion of our first Phase 3 clinical trial of LEVADEX. We announced that the clinical trial met its four primary endpoints: pain relief and freedom from nausea, phonophobia and photophobia as reported two hours after dosing. Additional endpoints showed that LEVADEX provided rapid and sustained pain relief for up to 48 hours after dosing.

In December 2008 we entered into a worldwide collaboration with AstraZeneca AB to develop and commercialize Unit Dose Budesonide, or UDB, our proprietary nebulized version of budesonide for the potential treatment of asthma in children, which became effective on February 2, 2009. In February 2009, we announced top-line results from our first Phase 3 trial of UDB, indicating that the trial did not meet its co-primary endpoints when compared to placebo. On July 8, 2009, we received a notice of termination of the license agreement with AstraZeneca AB, or the AstraZeneca Agreement, related to the UDB product candidate, effective immediately. We also announced plans to suspend development of UDB.

As of June 30, 2009, we own or in-license 6 issued U.S. patents, and 9 U.S. patent applications, as well as their foreign counterparts, which relate to our most advanced product candidate, LEVADEX. The patents and patent applications that may issue that we own or in-license, which we rely on for LEVADEX, expire between 2017 and 2029. Our patent and patent applications relating to LEVADEX include claims covering:

various formulations of the LEVADEX active ingredient;

the processing of the LEVADEX active ingredient;

stabilization of the formulation;

pharmacokinetics of the active ingredient delivered by the inhalation system; and

the treatment of migraine via delivery of the formulation to the lung.

MAP Pharmaceuticals, Inc., incorporated in the state of Delaware, was originally formed as a limited liability company on July 3, 2003 and converted to a corporation on December 11, 2003. Our principal executive offices are located at 2400 Bayshore Parkway, Suite 200, Mountain View, CA 94043, and our telephone number at that address is (650) 386-3100. Our website can be found at www.mappharma.com.

Table of Contents

The Offering

The following summary is qualified in its entirety by reference to the more detailed information appearing elsewhere in this prospectus supplement. For more information concerning our common stock, see Description of Common Stock.

Issuer	MAP Pharmaceuticals, Inc.
The Nasdaq Global Market Symbol	MAPP
Common Stock Offered	3,500,000 shares (or 4,000,000 shares if the underwriters exercise in full their over-allotment option to purchase additional shares)
Common Stock to be Outstanding After this Offering (1)	24,409,149 shares (or 24,909,149 shares if the underwriters exercise in full their over-allotment option to purchase additional shares)
Risk Factors	See Risk Factors beginning on page S-4 of this prospectus supplement for a discussion of the factors you should carefully consider before deciding to invest in our common stock.
Use of Proceeds	We estimate that the net proceeds from this offering, after deducting underwriting discounts and commissions and before estimated offering expenses, will be approximately \$31.8 million (or approximately \$36.4 million if the underwriters exercise in full their over-allotment option to purchase additional shares), based on an assumed offering price of \$9.80 per share (which was the closing price on August 4, 2009). We intend to apply the net proceeds from this offering for general corporate purposes, focusing on clinical development of LEVADEX. For more information, see Use of Proceeds.
Certain Material United States Federal Income Tax Consequences to Non-U.S. Holders	You should consult with your tax advisor with respect to the U.S. federal income tax considerations of owning our common stock in light of your own particular situation and with respect to any tax considerations arising under the laws of any state, local, foreign or other taxing jurisdiction. See Certain Material United States Federal Income Tax Consequences to Non-U.S. Holders.

(1) Based on shares outstanding as of August 4, 2009. Excludes 3,906,830 shares of common stock issuable upon the exercise of outstanding stock options and warrants to purchase shares of our common stock.

Table of Contents

FORWARD-LOOKING STATEMENTS

All statements included or incorporated by reference into this prospectus supplement, the accompanying prospectus and the documents incorporated by reference into this prospectus supplement, other than statements of historical facts, that address activities, events or developments that we intend, expect, project, believe or anticipate will or may occur in the future are forward looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, which are subject to the safe harbor created by those sections. This prospectus supplement, the accompanying prospectus and the documents incorporated by reference into this prospectus supplement contain forward looking statements that are based on current expectations, estimates, forecasts and projections about us, our future performance, our business or others on our behalf, our beliefs and our management's assumptions. In some cases you can identify forward-looking statements by words such as may, will, should, could, would, expects, plans, anticipates, estimates, projects, predicts, potential and similar expressions intended to identify forward-looking statements. Examples of these statements include, but are not limited to, statements regarding:

the implications of interim or final results of our clinical trials, the progress of our research programs, including clinical testing;

the extent to which our issued and pending patents may protect our products and technology;

our ability to identify new product candidates;

the potential of such product candidates to lead to the development of commercial products;

our anticipated timing for initiation or completion of our clinical trials for any of our product candidates;

our future operating expenses;

our future losses;

our future expenditures for research and development; and

the sufficiency of our cash resources.

Our actual results could differ materially from those anticipated in these forward-looking statements for many reasons, including the risks faced by us and described in Risk Factors elsewhere in this prospectus supplement. You should not place undue reliance on these forward-looking statements, which apply only as of the date of this prospectus supplement. These cautionary statements should be considered in connection with any written or oral forward looking statements that we may issue in the future. Except as required by law, we assume no obligation to update these forward-looking statements, whether as a result of new information, future events or otherwise.

Table of Contents

RISK FACTORS

An investment in our common stock involves a high degree of risk. You should carefully consider the following risk factors in addition to the remainder of this prospectus supplement and the accompanying prospectus, including the information incorporated by reference, before making an investment decision. In addition, you should carefully consider, among other things, the matters discussed under Risk Factors in our Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2009, and in other documents that we subsequently file with the SEC, all of which are incorporated by reference into this prospectus supplement and the accompanying prospectus. The risks and uncertainties described in such incorporated documents and described below are not the only risks and uncertainties we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also impair our business operations. If any of those risks actually occurs, our business, financial condition and results of operations would suffer. In that event, the trading price of our common stock could decline, and you may lose all or part of your investment in our common stock. The risks discussed below also include forward-looking statements and our actual results may differ substantially from those discussed in these forward-looking statements. See Forward-Looking Statements.

Risks Relating to Our Financial Position and Need for Additional Capital

We have a history of net losses. Currently, we have no products approved for commercial sale, and to date we have not generated any product revenue. As a result, we expect to continue to incur substantial and increasing net losses for the foreseeable future, and we may never achieve or maintain profitability.

We are not profitable and do not expect to be profitable in the foreseeable future. We have incurred significant net losses and negative cash flow in each year since our inception, including net losses of approximately \$25.8 million, \$40.1 million and \$72.9 million, for the years ended December 31, 2006, 2007 and 2008, respectively. As of June 30, 2009, we had a deficit accumulated during development stage of approximately \$190.8 million. We have devoted most of our financial resources to research and development, including our pre-clinical development activities and clinical trials. We have not completed development of, or commercialized, any product candidate and have therefore not generated any product revenues. In that regard, we expect our expenses to increase as we continue with our Phase 3 clinical program for LEVADEX, our most advanced product candidate and conduct other clinical trials. In addition, if we are required by the U.S. Food and Drug Administration, or the FDA, to perform studies in addition to those we currently anticipate, our expenses will increase beyond expectations and the timing of any potential product approval may be delayed. We also expect an increase in our expenses associated with our manufacturing work and with preparing for commercialization. In addition, we expect to continue to incur costs to support operations as a public company. As a result, we may incur substantial and increasing net losses and negative cash flow for the foreseeable future. These losses and negative cash flows have had, and will continue to have, an adverse effect on our stockholders' equity and working capital.

Because of the numerous risks and uncertainties associated with pharmaceutical product development, we are unable to accurately predict the timing or amount of increased expenses or when, or if, we will be able to achieve or maintain profitability. We have financed our operations primarily through the sale of equity securities, debt financings and collaboration payments. The size of our future net losses will depend, in part, on the rate of growth of our expenses and the rate of growth, if any, of our revenues. Revenues from potential strategic partnerships are uncertain because we may not enter into any additional strategic partnerships. On July 8, 2009, we received a notice of termination, effective immediately, of our license agreement with AstraZeneca AB, or AstraZeneca, related to our Unit Dose Budesonide, or UDB, product candidate. Under the AstraZeneca Agreement, AstraZeneca had agreed to fund our remaining development activities for UDB and to reimburse us for costs we incur with respect to future UDB development activities conducted for the U.S. registration, subject to the terms and conditions of the license agreement. Following the termination of the license agreement, we suspended

Table of Contents

development of UDB. If we are unable to develop and commercialize our other product candidates or if sales revenue from any product candidate that receives marketing approval is insufficient, we will not achieve profitability. Even if we do achieve profitability, we may not be able to sustain or increase profitability.

We have a limited operating history, and we expect a number of factors to cause our operating results to fluctuate on a quarterly and annual basis, which may make it difficult to predict our future performance.

Our operations to date have been primarily limited to organizing and staffing our company, developing our technology and undertaking pre-clinical studies and clinical trials of our product candidates. We have not yet obtained regulatory approvals for any of our product candidates. Consequently, any predictions you make about our future success or viability may not be as accurate as they could be if we had a longer operating history. Specifically, our financial condition and operating results have varied significantly in the past and will continue to fluctuate from quarter-to-quarter and year-to-year in the future due to a variety of factors, many of which are beyond our control. Factors relating to our business that may contribute to these fluctuations include the following factors, among others:

our ability to obtain additional funding to develop our product candidates;

the need to obtain regulatory approval of our most advanced product candidate, LEVADEX for migraine;

delays in the commencement, enrollment and completion of clinical testing, as well as the analysis and reporting of results from such clinical testing;

our ability to manage our supply chain for the study drug, other clinical materials and potentially approved products;

the success of clinical trials of our LEVADEX product candidate or future product candidates;

the FDA's determination of the special protocol assessment, or SPA, we entered into for LEVADEX;

any delays in regulatory review and approval of product candidates in clinical development;

our ability to receive regulatory approval or commercialize our product candidates;

regulatory difficulties relating to products that have already received regulatory approval;

our ability to rely on Section 505(b)(2) of the Federal Food, Drug and Cosmetic Act, or FDCA, to seek FDA marketing approval of our product candidates;

market acceptance of our product candidates for which we obtain regulatory approval;

Edgar Filing: MAP Pharmaceuticals, Inc. - Form 424B5

our ability, and our partners' ability, to establish an effective sales and marketing infrastructure;

competition from existing products or new products that may emerge;

the impact of competition, including generics, in the migraine market on our ability to commercialize LEVADEX;

guidelines and recommendations of therapies published by various organizations;

the ability of patients to obtain coverage of or sufficient reimbursement for our products;

the ability to receive regulatory approval or commercialize our products;

S-5

Table of Contents

potential side effects of our future products that could delay or prevent commercialization or cause an approved drug to be taken off the market;

potential product liability claims;

potential liabilities associated with hazardous materials;

our ability to maintain adequate insurance policies;

our dependency on third-party manufacturers to supply or manufacture our products;

our ability to establish or maintain collaborations, licensing or other arrangements;

our ability, our partners' abilities, and third parties' abilities to protect and assert intellectual property rights;

costs related to and outcomes of potential intellectual property litigation;

compliance with obligations under intellectual property licenses with third parties;

our ability to adequately support future growth; and

our ability to attract and retain key personnel to manage our business effectively.

Due to the various factors mentioned above, and others, the results of any prior quarterly or annual periods should not be relied upon as indications of our future operating performance.

We will need substantial additional funding and if we are unable to raise capital when needed, we would be forced to delay, reduce or eliminate our product development programs.

Developing biopharmaceutical products, including conducting pre-clinical studies and clinical trials and establishing manufacturing capabilities, is expensive. We expect our research and development expenses to increase in connection with our ongoing activities, particularly as we focus on and proceed with our Phase 3 clinical program and conduct our other clinical trials of LEVADEX, our most advanced product candidate. In addition, our expenses could increase beyond expectations if the FDA requires that we perform additional studies to those that we currently anticipate, in which case the timing of any potential product approval may be delayed. We believe that our existing cash, cash equivalents and short-term investments will be sufficient to fund our projected operating requirements for at least 12 months. We will need substantial additional capital in the future in order to complete the development and commercialization of LEVADEX and to fund the development and commercialization of our future product candidates. Until we can generate a sufficient amount of product revenue, if ever, we expect to finance future cash needs through public or private equity offerings, debt financings or corporate collaboration and licensing arrangements. Such funding, if needed, may not be available on favorable terms, if at all. In the event we are unable to obtain additional capital, we may delay or reduce the scope of our current research and development programs and other expenses.

As widely reported, financial markets in the United States, Europe and Asia have been experiencing extreme disruption in recent months, including, among other things, extreme volatility in security prices, severely diminished liquidity and credit availability,

Edgar Filing: MAP Pharmaceuticals, Inc. - Form 424B5

rating downgrades of certain investments and declining valuations of others. Governments have taken unprecedented actions intended to address extreme market conditions that include severely restricted credit and declines in real estate values. Concern about the stability of the markets generally and the strength of counterparties specifically has led many lenders and institutional investors to reduce, and in some cases, cease to provide funding to borrowers. Continued turbulence in the U.S. and international markets and economies may limit our ability to access the capital markets to meet our funding requirements.

S-6

Table of Contents

If adequate funds are not available, we may be required to delay, reduce the scope of or eliminate one or more of our research or development programs or our commercialization efforts. To the extent that we raise additional funds by issuing equity securities, our stockholders may experience additional significant dilution, and debt financing, if available, may involve restrictive covenants. To the extent that we raise additional funds through collaboration and licensing arrangements, it may be necessary to relinquish some rights to our technologies or our product candidates or to grant licenses on terms that may not be favorable to us. We may seek to access the public or private capital markets whenever conditions are favorable, even if we do not have an immediate need for additional capital at that time.

Our forecast of the period of time through which our financial resources will be adequate to support our operations is a forward-looking statement and involves risks and uncertainties, and actual results could vary as a result of a number of factors, including the factors discussed elsewhere in this Risk Factors section. We have based this estimate on assumptions that may prove to be wrong, and we could utilize our available capital resources sooner than we currently expect. Our future funding requirements will depend on many factors, including, but not limited to:

the scope, rate of progress and cost of our clinical trials and other research and development activities;

the costs and timing of regulatory approval;

the costs of filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights;

the effect of competing technological and market developments;

the terms and timing of any collaboration, licensing or other arrangements that we may establish;

the cost and timing of completion of clinical and commercial-scale outsourced manufacturing activities; and

the costs of establishing sales, marketing and distribution capabilities for any product candidates for which we may receive regulatory approval.

Risks Relating to the Development, Regulatory Approval and

Commercialization of Our Product Candidates

We are largely dependent on the success of one product candidate, and we cannot be certain that this product candidate will receive regulatory approval.

We have invested a significant portion of our efforts and financial resources in the development of UDB and LEVADEX. We recently announced that we are suspending development of UDB, after our partner AstraZeneca terminated our license agreement. In February 2009, we announced top-line results from our first Phase 3 trial of UDB, indicating that the trial did not meet its co-primary endpoints in either dose evaluated when compared to placebo. Our contract with AstraZeneca provided a right of termination in the event that the trial failed to meet its co-primary endpoints and in July 2009, AstraZeneca notified us of the termination of the collaboration, effective immediately. We are now largely dependent on the success of one product candidate, LEVADEX, for which we are conducting a Phase 3 clinical development program. Our ability to generate product revenue, which we do not expect will occur for at least the next several years, if ever, will depend heavily on the successful development and regulatory approval of this product candidate. We may have inadequate financial or other resources to advance LEVADEX through the clinical trial process, depending on the requirements of the FDA. In May 2009, we announced top-line results from the efficacy portion of our first Phase 3 trial of LEVADEX, indicating that the trial met all its co-primary endpoints when LEVADEX was

compared to placebo. A

S-7

Table of Contents

subset of subjects from this trial are continuing in a long-term safety extension of the study and we are continuing to recruit and enroll subjects in the safety extension. We also expect to conduct a second, confirmatory Phase 3 clinical trial as well as additional Phase 2 trials, including a pharmacokinetic trial in approximately 24 adult smokers comparing them to non-smokers and a pharmacodynamic trial in approximately 24 healthy adults compared to placebo, studying echocardiographic effects, of LEVADEX before submitting an application to the FDA for regulatory approval. Our clinical development program for LEVADEX may not lead to regulatory approval from the FDA and similar foreign regulatory agencies if we fail to demonstrate that the product candidate is safe and effective in our planned clinical trials, and we may therefore fail to commercialize any product candidates. Any failure to obtain regulatory approval of LEVADEX would have a material and adverse impact on our business.

With the suspension of development for our UDB product candidate, LEVADEX is our only current product candidate in late stage development. Our drug discovery efforts may not produce any other proprietary product candidates. We cannot be certain that we will be able to acquire or in-license other product candidates or, develop a next generation budesonide therapy for the treatment of asthma in children, should we pursue these activities. Our failure to develop product candidates will limit our ability to generate additional revenue.

We currently have no approved drug products for sale and we cannot guarantee that we will ever have marketable drug products. The research, testing, manufacturing, labeling, approval, selling, marketing and distribution of drug products are subject to extensive regulation by the FDA and other regulatory authorities in the United States and other countries, with regulations differing from country to country. We are not permitted to market our product candidates in the United States until we receive approval of a new drug application, or an NDA, from the FDA for each product candidate. We have not submitted an NDA or received marketing approval for any of our product candidates. Obtaining approval of an NDA is a lengthy, expensive and uncertain process. Markets outside of the United States also have requirements for approval of drug candidates which we must comply with prior to marketing.

We may enter into collaborations with third parties to develop and commercialize our product candidates, including LEVADEX. These collaborations may place the development of our product candidates outside our control, may require us to relinquish important rights or may otherwise be on terms unfavorable to us.

We may enter into collaborations with third parties to develop and commercialize our product candidates, including LEVADEX. Our dependence on future partners for development and commercialization of our product candidates will subject us to a number of risks, including:

we may not be able to control the amount and timing of resources that our partners may devote to the development or commercialization of product candidates or to their marketing and distribution;

partners may delay clinical trials, provide insufficient funding for a clinical trial program, stop a clinical trial or abandon a product candidate, repeat or conduct new clinical trials or require a new formulation of a product candidate for clinical testing;

disputes may arise between us and our partners that result in the delay or termination of the research, development or commercialization of our product candidates or that result in costly litigation or arbitration that diverts management's attention and resources;

partners may experience financial difficulties;

partners may not properly maintain or defend our intellectual property rights, or may use our proprietary information, in such a way as to invite litigation that could jeopardize or invalidate our intellectual property rights or proprietary information or expose us to potential litigation;

Table of Contents

business combinations or significant changes in a partner's business strategy may adversely affect a partner's willingness or ability to complete its obligations under any arrangement;

a partner could independently move forward with a competing product candidate developed either independently or in collaboration with others, including our competitors; and

the collaborations with our partners may be terminated or allowed to expire, which would delay the development and may increase the cost of developing our product candidates.

Delays in the commencement, enrollment and completion of clinical testing could result in increased costs to us and delay or limit our ability to obtain regulatory approval for our product candidates.

Delays in the commencement, enrollment and completion of clinical testing could significantly affect our product development costs. We do not know whether planned clinical trials for LEVADEX will begin on time or be completed on schedule, if at all. The commencement and completion of clinical trials requires us to identify and maintain a sufficient number of trial sites, many of which may already be engaged in other clinical trial programs for the same indication as our product candidates or may be required to withdraw from our clinical trial as a result of changing standards of care or may become ineligible to participate in clinical studies. The commencement, enrollment and completion of clinical trials can be delayed for a variety of other reasons, including delays related to:

reaching agreements on acceptable terms with prospective contract research organizations, or CROs, and trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;

obtaining regulatory approval to commence a clinical trial;

obtaining institutional review board, or IRB, approval to conduct a clinical trial at numerous prospective sites;

recruiting and enrolling patients to participate in clinical trials for a variety of reasons, including meeting the enrollment criteria for our study and competition from other clinical trial programs for the same indication as our product candidates;

retaining patients who have initiated a clinical trial but may be prone to withdraw due to the treatment protocol, lack of efficacy, personal issues or side effects from the therapy or who are lost to further follow-up;

maintaining and supplying clinical trial material on a timely basis;

complying with design protocols of any applicable SPAs; and

collecting, analyzing and reporting final data from the clinical trials.

In addition, a clinical trial may be suspended or terminated by us, the FDA or other regulatory authorities due to a number of factors, including:

failure to conduct the clinical trial in accordance with regulatory requirements or our clinical protocols;

inspection of the clinical trial operations or trial sites by the FDA or other regulatory authorities resulting in the imposition of a clinical hold;

unforeseen safety issues or any determination that a trial presents unacceptable health risks; and

S-9

Table of Contents

lack of adequate funding to continue the clinical trial, including the incurrence of unforeseen costs due to enrollment delays, requirements to conduct additional trials and studies and increased expenses associated with the services of our CROs and other third parties.

If we are required to conduct additional clinical trials or other testing of our LEVADEX product candidate beyond those that we currently contemplate, we may be delayed in obtaining, or may not be able to obtain, marketing approval for this product candidate. We currently are conducting a Phase 3 clinical program for LEVADEX and will need to conduct additional Phase 3 and Phase 2 clinical trials in order to obtain regulatory approval for this product candidate. We may not be able to obtain approval for indications that are as broad as intended or we may obtain approval for indications different than those indications for which we seek approval. Furthermore we may not be able to obtain approval for any of our other product candidates.

Additionally, changes in regulatory requirements and guidance may occur and we may need to amend clinical trial protocols to reflect these changes with appropriate regulatory authorities. Amendments may require us to resubmit our clinical trial protocols to IRBs for re-examination, which may impact the costs, timing or successful completion of a clinical trial. If we experience delays in the completion of, or if we terminate, our clinical trials, the commercial prospects for our product candidates will be harmed, and our ability to generate product revenues will be delayed. In addition, many of the factors that cause, or lead to, a delay in the commencement or completion of clinical trials may also ultimately lead to the denial of regulatory approval of a product candidate. Even if we are able to ultimately commercialize our product candidates, other therapies for the same or similar indications may have been introduced to the market and established a competitive advantage.

Because the results of prior clinical trials are not necessarily predictive of future results, LEVADEX or any other product candidate advanced into clinical trials may not have favorable results in subsequent clinical trials or receive regulatory approval.

Success in pre-clinical studies and clinical trials does not ensure that subsequent clinical trials will generate adequate data to demonstrate the efficacy and safety of the investigational drug. A number of companies in the pharmaceutical industry, including those with greater resources and experience, have suffered significant setbacks in Phase 3 clinical trials, even after seeing promising results in prior clinical trials.

In May 2009, we announced top-line results from the efficacy portion of our first Phase 3 trial of LEVADEX, indicating that the trial met all four of its co-primary endpoints when LEVADEX was compared to placebo. A subset of subjects from this trial is continuing in a long-term safety extension of the study and we are continuing to recruit and enroll subjects for this safety extension. In order to obtain regulatory approval for LEVADEX, we will need to conduct additional Phase 3 and Phase 2 clinical trials. The data collected from our clinical trials may not be adequate to support regulatory approval of LEVADEX or any of our other product candidates. Even if we obtain regulatory approval of a product candidate, the FDA may require continuing evaluation and study of our product through clinical trials as a condition of any approval. Despite the results reported in prior clinical trials for our product candidates, we do not know whether subsequent Phase 3 or other clinical trials we may conduct will demonstrate adequate efficacy and safety to result in regulatory approval to market our product candidates. For example, in February 2009, we announced top-line results from our first Phase 3 trial of UDB, indicating that the trial did not meet its co-primary endpoints in either dose evaluated when compared to placebo. In July 2009, AstraZeneca terminated our collaboration. We have suspended development of our UDB product candidate.

If clinical trials of our LEVADEX product candidate or future product candidates do not produce results necessary to support regulatory approval in the United States or elsewhere or show undesirable side effects, we will be unable to commercialize these products.

To receive regulatory approval for the commercial sale of LEVADEX or any other product candidates, we must conduct adequate and well-controlled clinical trials to demonstrate efficacy and

Table of Contents

safety in humans. Clinical testing is expensive, takes many years and has an uncertain outcome. Clinical failure can occur at any stage of the testing. Our clinical trials may produce negative or inconclusive results. In such cases, we may decide, or regulators may require us, to conduct additional clinical and/or non-clinical testing, or we may decide not to pursue further development of a product candidate, such as the case of our UDB product candidate, where top-line results of our initial Phase 3 clinical trial indicated that the trial failed to meet the primary endpoints. In addition, the results of our clinical trials may show that our product candidates may cause undesirable side effects, which could interrupt, delay or halt clinical trials, resulting in inability to obtain regulatory approval by the FDA and other regulatory authorities.

In light of widely publicized events concerning the safety risk of certain drug products, regulatory authorities, members of Congress, the Government Accounting Office, medical professionals and the general public have raised concerns about potential drug safety issues. These events have resulted in the withdrawal of drug products, revisions to drug labeling that further limit use of the drug products and establishment of risk management programs that may, for instance, restrict distribution of drug products. The increased attention to drug safety issues may result in a more cautious approach by the FDA to clinical trials. Data from clinical trials may receive greater scrutiny with respect to safety, which may make the FDA or other regulatory authorities more likely to terminate clinical trials before completion, or require longer or additional clinical trials that may result in substantial additional expense and a delay or failure in obtaining approval or approval for a more limited indication than originally sought.

Our failure to adequately demonstrate the efficacy and safety of LEVADEX or any other product candidates would prevent regulatory approval and, ultimately, the commercialization of that product candidate.

All of our product candidates in development require regulatory review and approval prior to commercialization. Any delay in the regulatory review or approval of any of our product candidates in development will harm our business.

All of our product candidates in development require regulatory review and approval prior to commercialization. Any delays in the regulatory review or approval of our product candidates in development would delay market launch, increase our cash requirements and result in additional operating losses.

The process of obtaining FDA and other required regulatory approvals, including foreign approvals, often takes many years and can vary substantially based upon the type, complexity and novelty of the products involved. Furthermore, this approval process is extremely complex, expensive and uncertain. We or our partners may not be able to maintain our proposed schedules for the submission of any NDA in the United States or any marketing approval application or other foreign applications for any of our products. If we or our partners submit any NDA, including any amended NDA or supplemental NDA, to the FDA seeking marketing approval for any of our product candidates, the FDA must decide whether to either accept or reject the submission for filing. We cannot be certain that any of these submissions will be accepted for filing and reviewed by the FDA, or that our marketing approval application submissions to any other regulatory authorities will be accepted for filing and review by those authorities. We cannot be certain that we or our partners will be able to respond to any regulatory requests during the review period in a timely manner without delaying potential regulatory action. We also cannot be certain that any of our product candidates will receive favorable recommendation from any FDA advisory committee or foreign regulatory bodies or be approved for marketing by the FDA or foreign regulatory authorities. In addition, delays in approvals or rejections of marketing applications may be based upon many factors, including regulatory requests for additional analyses, reports, data and/or studies, regulatory questions regarding data and results, changes in regulatory policy during the period of product development and/or the emergence of new information regarding our products or other products.

Data obtained from pre-clinical studies and clinical trials are subject to different interpretations, which could delay, limit or prevent regulatory review or approval of any of our products. In addition, as a routine part of the evaluation of any potential drug, clinical studies are generally conducted to assess the

Table of Contents

potential for drug-to-drug interactions that could impact potential product safety. At this point in time, we have not been requested to perform drug-to-drug interaction studies, but any such request may delay any potential product approval and will increase our expenses associated with our clinical programs. Furthermore, regulatory attitudes towards the data and results required to demonstrate safety and efficacy can change over time and can be affected by many factors, such as the emergence of new information, including on other products, changing policies and agency funding, staffing and leadership. We cannot be sure whether future changes to the regulatory environment will be favorable or unfavorable to our business prospects.

In addition, the environment in which our regulatory submissions may be reviewed changes over time. For example, average review times at the FDA for marketing approval applications have fluctuated over the last ten years, and we cannot predict the review time for any of our submissions with any regulatory authorities. In addition, review times can be affected by a variety of factors, including budget and funding levels and statutory, regulatory and policy changes.

While we have negotiated an SPA with the FDA for our first Phase 3 clinical trial of LEVADEX for the potential treatment of migraine, the SPA does not guarantee any particular outcome from regulatory review of the study or the product candidate.

The FDA's SPA process creates a written agreement between the sponsoring company and the FDA regarding clinical trial design and other clinical trial issues that can be used to support approval of a product candidate. The SPA is intended to provide assurance that if the agreed upon clinical trial protocols are followed and the trial endpoints are achieved, the data may serve as the primary basis for an efficacy claim in support of an NDA. However, the SPA agreement is not a guarantee of an approval of a product or any permissible claims about the product. In particular, the SPA is not binding on the FDA if public health concerns unrecognized at the time of the SPA agreement is entered into become evident, other new scientific concerns regarding product safety or efficacy arise or if the sponsor company fails to comply with the agreed upon trial protocols. In January 2008, we announced that we reached agreement with the FDA on a SPA for the first Phase 3 clinical trial of our LEVADEX product candidate for the potential treatment of migraine. In May 2009, we announced top-line results from the efficacy portion of our first Phase 3 trial of LEVADEX, indicating that the trial met all its co-primary endpoints when LEVADEX was compared to placebo. A subset of subjects from this trial is continuing in a long-term safety extension of the study and we are continuing to recruit and enroll subjects for this safety extension of the study. We cannot assure you that the safety extension of the Phase 3 clinical trial will be successful. In addition, we do not know how the FDA will interpret the commitments under the SPA agreement, how it will interpret the data and results or whether it will approve our LEVADEX product candidate for the treatment of migraine. As a result, we cannot guarantee any particular outcome from regulatory review of the first LEVADEX Phase 3 trial.

We may not be able to rely on Section 505(b)(2) of the Federal Food, Drug and Cosmetic Act, which could result in a longer development program and more costly trials than we anticipate.

We may not be able to seek FDA marketing approval of our product candidates under Section 505(b)(2) of the FFDC. Section 505(b)(2), if applicable to us, would allow an NDA we file with the FDA to rely in part on data in the public domain or the FDA's prior conclusions regarding the safety and effectiveness of approved compounds, which could expedite the development program for our product candidates by potentially decreasing the overall scope of work we must do ourselves. If we are unable to rely on Section 505(b)(2), the development program for our product candidates would be longer than we expect, and we would also have to conduct more costly trials than we anticipate.

If any of our product candidates for which we or our partners receive regulatory approval do not achieve broad market acceptance, the revenues that we generate from their sales will be limited.

The commercial success of our product candidates for which we or our partners obtain marketing approval from the FDA or other regulatory authorities will depend upon the acceptance of these products among physicians, the medical community, patients, and coverage and reimbursement of them by third-

Table of Contents

party payors, including government payors. The degree of market acceptance of any of our approved products will depend on a number of factors, including:

a product's FDA-approved labeling as well as limitations or warnings contained in the labeling;

changes in the standard of care for the targeted indications for any of our product candidates, which could reduce the marketing impact of any claims that we could make following FDA approval;

limitations inherent in the approved indication for any of our product candidates compared to more commonly understood or addressed medical conditions;

lower demonstrated efficacy and a less favorable safety or tolerability profile compared to other products;

device-related difficulties associated with our Tempo inhaler;

prevalence and severity of adverse effects;

ineffective marketing and distribution efforts;

lack of availability of reimbursement from managed care plans and other third-party payors;

lack of cost-effectiveness;

timing of market introduction and perceived effectiveness of competitive products;

availability of alternative therapies, including generics, at similar or lower costs;

patients' potential preferences to take oral medications over inhaled medications; and

potential product liability claims.

Our and our partners' ability to effectively promote and sell our product candidates in the marketplace will also depend on pricing and cost effectiveness, including our and our partners' ability to manufacture a product at a competitive price. We will also need to demonstrate acceptable evidence of safety and efficacy and may need to demonstrate relative convenience and ease of administration. Inhaled versions of certain previously approved drugs have suffered commercial failure, including recently inhaled insulin. If our product candidates are approved but do not achieve an adequate level of acceptance by physicians, health care payors and patients, we may not generate sufficient revenue from these products, and we may not become or remain profitable. In addition, our and our partners' efforts to educate the medical community and third-party payors on the benefits of our product candidates may require significant resources and may never be successful. If our approved drugs fail to achieve market

acceptance, we will not be able to generate significant revenue, if any.

We have never marketed a drug before, and if we are unable to establish an effective and focused sales force and marketing infrastructure, we will not be able to commercialize our product candidates successfully.

We plan to market or co-promote our products where appropriate and build our own focused sales force in the United States. We currently do not have significant internal sales, distribution and marketing capabilities. For example, in order to commercialize LEVADEX, we intend to develop a focused sales force and marketing capabilities in the United States directed at high prescribers including specialists

S-13

Table of Contents

such as neurologists and headache specialists. The development of a focused sales and marketing infrastructure for our domestic operations will require substantial resources, will be expensive and time consuming and could negatively impact our commercialization efforts, including delay of any product launch. Many of these costs will be incurred in advance of notice to us that any of our product candidates has been approved. In addition, we may not be able to hire a focused sales force in the United States that is sufficient in size or has adequate expertise in the medical markets that we intend to target, including neurology. If we are unable to establish our focused sales force and marketing capability for our most advanced product candidate, we may not be able to generate any product revenue, may generate increased expenses and may never become profitable.

We expect intense competition with respect to our existing and future product candidates.

The pharmaceutical industry is highly competitive, with a number of established, large pharmaceutical companies, as well as many smaller companies. Many of these companies have greater financial resources, marketing capabilities and experience in obtaining regulatory approvals for product candidates. There are many pharmaceutical companies, biotechnology companies, public and private universities, government agencies and research organizations actively engaged in research and development of products which may target the same indications as our product candidates. We expect any future products we develop to compete on the basis of, among other things, product efficacy and safety, time to market, price, extent of adverse side effects and convenience of treatment procedures. One or more of our competitors may develop products based upon the principles underlying our proprietary technologies earlier than us, obtain approvals for such products from the FDA more rapidly than us or develop alternative products or therapies that are safer, more effective and/or more cost effective than any products developed by us.

Competitors may seek to develop alternative formulations of our product candidates that address our targeted indications. The commercial opportunity for our product candidates could be significantly harmed if competitors are able to develop alternative formulations outside the scope of our products. Compared to us, many of our potential competitors have substantially greater:

capital resources;

research and development resources, including personnel and technology;

clinical trial experience;

regulatory experience;

expertise in prosecution of intellectual property rights;

manufacturing and distribution experience; and

sales and marketing resources and experience.

As a result of these factors, our competitors may obtain regulatory approval of their products more rapidly than we are able to or may obtain patent protection or other intellectual property rights that limit our ability to develop or commercialize our product candidates. Our competitors may also develop drugs that are more effective, useful and less costly than ours and may also be more successful than us in manufacturing and marketing their products.

The migraine market is extremely competitive which may negatively impact our ability to commercialize LEVADEX.

If approved for the treatment of acute migraine, we anticipate that LEVADEX would compete against other marketed migraine therapeutics and may compete with products currently under

Table of Contents

development by both large and small companies. The majority of marketed prescription products for treatment of migraine are in the triptan class. The largest selling triptan is Imitrex from GlaxoSmithKline, with 2007 sales of approximately \$1.2 billion in the United States and \$1.6 billion worldwide, according to data published by IMS Health. There are at least six other branded triptan therapies being sold by pharmaceutical companies. Alternative formulations of triptans are available that may have faster onset of action than solid oral dosage forms. Alternative formulations of dihydroergotamine, or DHE include Migranal, which is nasally delivered, and which may become generically available prior to commercial introduction, if at all, of LEVADEX. In addition to the marketed migraine therapeutics, there are product candidates under development by large pharmaceutical companies, such as Merck & Co., Inc., and other smaller companies, that could potentially be used to treat migraine and compete with LEVADEX.

In addition, we may face competition from generic sumatriptan, the active ingredient in Imitrex. The FDA has approved generic versions of sumatriptan. Although we believe generic sumatriptan could not be substituted for LEVADEX, a generic version of sumatriptan may be more quickly adopted by health insurers and patients than LEVADEX. Financial pressure to use generic products and uncertainty of reimbursement for single source alternatives, such as LEVADEX, may encourage the use of a generic product over LEVADEX.

If our patients are unable to obtain coverage of or sufficient reimbursement for our products, it is unlikely that our products will be widely used.

Successful sales of our products depend on the availability of adequate coverage and reimbursement from third-party payors. Healthcare providers that purchase medicine or medical products for treatment of their patients generally rely on third-party payors to reimburse all or part of the costs and fees associated with the products. Adequate coverage and reimbursement from governmental payors, such as Medicare and Medicaid, and commercial payors is critical to new product acceptance. Patients are unlikely to use our products if they do not receive reimbursement adequate to cover the cost of our products.

In addition, the market for our future products will depend significantly on access to third-party payors' drug formularies, or lists of medications for which third-party payors provide coverage and reimbursement. Industry competition to be included in such formularies results in downward pricing pressures on pharmaceutical companies. Third-party payors may refuse to include a particular branded drug in their formularies when a generic equivalent is available.

All third-party payors, whether governmental or commercial, whether inside the United States or outside, are developing increasingly sophisticated methods of controlling healthcare costs. In addition, in the United States, no uniform policy of coverage and reimbursement for medical technology exists among all these payors. Therefore, coverage of and reimbursement for medical products can differ significantly from payor to payor.

Further, we believe that future coverage and reimbursement may be subject to increased restrictions both in the United States and in international markets, pursuant to currently proposed healthcare reforms or otherwise. Third-party coverage and reimbursement for our products may not be available or adequate in either the United States or international markets, limiting our ability to sell our products on a profitable basis.

Even if our product candidates receive regulatory approval in the United States, we or our partners may never receive approval or commercialize our products outside of the United States.

In order to market and commercialize any products outside of the United States, we and our partners must establish and comply with numerous and varying regulatory requirements of other countries regarding safety and efficacy. Approval procedures vary among countries and can involve additional pre-clinical studies and clinical trials and additional administrative review periods. For example, European regulatory authorities generally require clinical testing comparing the efficacy of the new drug to an existing drug prior to granting approval. The time required to obtain approval in other countries might

Table of Contents

differ from that required to obtain FDA approval. The regulatory approval process in other countries may include all of the risks detailed above regarding FDA approval in the United States, as well as other risks. Regulatory approval in one country does not ensure regulatory approval in another, but a failure or delay in obtaining regulatory approval in one country may have a negative effect on the regulatory process in other countries. Failure to obtain regulatory approval in other countries or any delay or setback in obtaining such approval could have the same adverse effects detailed above regarding FDA approval in the United States. As described above, such effects include the risks that our product candidates may not be approved for all indications requested, which could limit the uses of our product candidates and have an adverse effect on product sales and potential royalties, and that such approval may be subject to limitations on the indicated uses for which the product may be marketed or require costly, post-marketing follow-up studies.

Our product candidates may have undesirable side effects and cause our approved drugs to be taken off the market.

If our most advanced product candidate, LEVADEX, or any other product candidate, receives marketing approval and we or others later identify undesirable side effects caused by such products:

regulatory authorities may require the addition of labeling statements, specific warnings, a contraindication or field alerts to physicians and pharmacies;

regulatory authorities may withdraw their approval of the product and require us to take our approved drug off the market;

we may be required to change the way the product is administered, conduct additional clinical trials or change the labeling of the product;

we may have limitations on how we promote our drugs;

sales of products may decrease significantly;

we may be subject to litigation or product liability claims; and

our reputation may suffer.

Any of these events could prevent us from achieving or maintaining market acceptance of the affected product or could substantially increase our commercialization costs and expenses, which in turn could delay or prevent us from generating significant revenues from its sale.

Even if our product candidates receive regulatory approval, we and our partners may still face future development and regulatory difficulties.

Even if U.S. regulatory approval is obtained, the FDA may still impose significant restrictions on a product's indicated uses or marketing or impose ongoing requirements for potentially costly post-approval studies. Given the number of recent high profile adverse safety events with certain drug products, the FDA may require, as a condition of approval, costly risk management programs which may include safety surveillance, restricted distribution and use, patient education, enhanced labeling, special packaging or labeling, expedited reporting of certain adverse events, pre-approval of promotional materials and restrictions on direct-to-consumer advertising. In addition, the FDA could condition any approval of LEVADEX on our implementation of a post-approval risk management plan. Furthermore, heightened Congressional scrutiny on the adequacy of the FDA's drug approval process and the agency's efforts to assure the safety of marketed drugs has resulted in the proposal of new legislation addressing

Edgar Filing: MAP Pharmaceuticals, Inc. - Form 424B5

drug safety issues. If enacted, any new legislation could result in delays or increased costs during the period of product development, clinical trials and regulatory review and approval, as well as increased costs to assure compliance with any new post-approval regulatory requirements. Any of these restrictions or requirements could force us to conduct costly studies or increase the time for us to become profitable. For example, any labeling approved for LEVADEX or any other product candidates may include a restriction

S-16

Table of Contents

on the term of its use, or it may not include one or more of our intended indications. The FDA historically has required that labeling for products containing DHE include a contraindication for use in women who are, or who may become, pregnant. Although we believe that this contraindication is not applicable to our formulation of DHE, the FDA may disagree and require the LEVADEX labeling to carry this contraindication.

Our product candidates will also be subject to ongoing FDA requirements for the current Good Manufacturing Practices (cGMP) labeling, packaging, storage, advertising, promotion, record-keeping and submission of safety and other post-market information on the drug. In addition, approved products, manufacturers and manufacturers facilities are subject to continual review and periodic inspections. If a regulatory agency discovers previously unknown problems with a product, such as adverse events of unanticipated severity or frequency, or problems with the facility where the product is manufactured, a regulatory agency may impose restrictions on that product or us, including requiring withdrawal of the product from the market. If our product candidates fail to comply with applicable regulatory requirements, or fail to be made in compliance with applicable regulatory requirements such as current Good Manufacturing Practices, or cGMPs, a regulatory agency may:

issue warning letters;

require us to enter into a consent decree, which can include imposition of various fines, reimbursements for inspection costs, required due dates for specific actions and penalties for noncompliance;

impose other civil or criminal penalties;

suspend regulatory approval;

suspend any ongoing clinical trials;

refuse to approve pending applications or supplements to approved applications filed by us;

impose restrictions on operations, including costly new manufacturing requirements; or

seize or detain products or require a product recall.

We or our potential partners will need to obtain FDA approval of the proposed product names for our product candidates and any failure or delay associated with such approval may adversely impact our business.

Any name we or our potential partners intend to use for our product candidates will require approval from the FDA regardless of whether we or our partners have secured a formal trademark registration from the U.S. Patent and Trademark Office. The FDA typically conducts a rigorous review of proposed product names, including an evaluation of potential for confusion with other product names. The FDA may also object to a product name if it believes the name inappropriately implies medical claims. If the FDA objects to our product names, we may be required to adopt an alternative name for our product candidates. If we or our partners adopt an alternative name, we or our partners would lose the benefit of our existing trademark applications and may be required to expend significant additional resources in an effort to identify a suitable product name that would qualify under applicable trademark laws, not infringe the existing rights of third parties and be acceptable to the FDA. We or our partners may be unable to build a successful brand identity for a new trademark in a timely manner or at all, which would limit our ability to commercialize our product candidates.

Table of Contents

Guidelines and recommendations published by various organizations may affect the use of our products.

Government agencies issue regulations and guidelines directly applicable to us and to our products. In addition, professional societies, practice management groups, private health/science foundations and organizations involved in various diseases from time to time publish guidelines or recommendations to the medical and patient communities. These various sorts of recommendations may relate to such matters as product usage, dosage, route of administration and use of related or competing therapies. Changes to this recommendation or other guidelines advocating alternative therapies could result in decreased use of our products, which may adversely affect our results of operations.

We face potential product liability exposure and, if successful claims are brought against us, we may incur substantial liability for a product candidate and may have to limit its commercialization.

The use of our product candidates in clinical trials and the sale of any products for which we obtain marketing approval, if at all, expose us to the risk of product liability claims. Product liability claims might be brought against us by consumers, health care providers or others using, administering or selling our products. If we cannot successfully defend ourselves against these claims, we will incur substantial liabilities. Regardless of merit or eventual outcome, liability claims may result in:

withdrawal of clinical trial participants;

termination of clinical trial sites or entire trial programs;

costs of related litigation;

substantial monetary awards to patients or other claimants;

decreased demand for our product candidates;

impairment of our business reputation;

loss of revenues; and

the inability to commercialize our product candidates.

We have obtained limited product liability insurance coverage for our clinical trials domestically and in selected foreign countries where we are conducting clinical trials. However, our insurance coverage may not reimburse us or may not be sufficient to reimburse us for any expenses or losses we may suffer. Moreover, insurance coverage is becoming increasingly expensive and, in the future, we may not be able to maintain insurance coverage at a reasonable cost or in sufficient amounts to protect us against losses due to liability. We intend to expand our insurance coverage to include the sale of commercial products if we obtain marketing approval for our product candidates in development, but we may be unable to obtain commercially reasonable product liability insurance for any products approved for marketing. On occasion, large judgments have been awarded in class action lawsuits based on drugs that had unanticipated side effects. A successful product liability claim or series of claims brought against us could cause our stock price to fall and, if judgments exceed our insurance coverage, could decrease our cash and adversely affect our business.

Our operations involve hazardous materials, which could subject us to significant liabilities.

Edgar Filing: MAP Pharmaceuticals, Inc. - Form 424B5

Our research and development processes involve the controlled use of hazardous materials, including chemicals. Our operations produce hazardous waste products. We cannot eliminate the risk of accidental contamination or discharge or injury from these materials. Federal, state and local laws and regulations govern the use, manufacture, storage, handling and disposal of these materials. We could be subject to civil damages in the event of an improper or unauthorized release of, or exposure of individuals, including employees, to, hazardous materials. In addition, claimants may sue us for injury or contamination that results from our use of these materials and our liability may exceed our total assets. We maintain insurance for the use of hazardous materials which may not be adequate to cover any claims. Compliance with environmental and other laws and regulations may be expensive and current or future regulations may impair our research, development or production efforts.

S-18

Table of Contents

Our insurance policies are expensive and protect us only from some business risks, which will leave us exposed to significant uninsured liabilities.

We do not carry insurance for all categories of risk that our business may encounter. For example, we do not carry earthquake insurance. In the event of a major earthquake in our region, our business could suffer significant and uninsured damage and loss. Some of the policies we currently maintain include general liability, property, auto, workers' compensation, products liability and directors' and officers' insurance policies. Our insurance is expensive and we do not know if we will be able to maintain existing insurance with adequate levels of coverage. Any significant uninsured liability may require us to pay substantial amounts, which would adversely affect our cash position and results of operations.

Risks Related to Our Dependence on Third Parties

We have no experience manufacturing large clinical-scale or commercial-scale pharmaceutical products and we do not own or operate a manufacturing facility. As a result, we are dependent on numerous third parties for the manufacture of our product candidates and our supply chain, and if we experience problems with any of these suppliers the manufacturing of our products could be delayed.

We do not own or operate manufacturing facilities for clinical or commercial manufacture of our product candidates, which includes drug substance and drug packaging, including the components of the Tempo inhaler, the device used to administer certain of our drug candidates. We have limited personnel with experience in drug manufacturing and we lack the capabilities to manufacture any of our product candidates on a clinical or commercial scale. We currently outsource all manufacturing and packaging of our pre-clinical and clinical product candidates to third parties. In addition, we do not currently have all necessary agreements with third-party manufacturers for the long-term commercial supply of our product candidates. We may be unable to enter agreements for commercial supply with all third-party manufacturers, or may be unable to do so on acceptable terms. Even if we enter into these agreements or, for those agreements that we have already entered into, the various manufacturers of each product candidate will likely be single source suppliers to us for a significant period of time. We may not be able to establish additional sources of supply for our products prior to commercialization. Such suppliers are subject to regulatory requirements covering manufacturing, testing, quality control and record keeping relating to our product candidates, and are subject to ongoing inspections by the regulatory agencies. Failure by any of our suppliers to comply with applicable regulations may result in long delays and interruptions to our manufacturing capacity while we seek to secure another supplier that meets all regulatory requirements.

Reliance on third-party manufacturers entails risks to which we would not be subject if we manufactured the product candidates ourselves, including:

reliance on the third parties for regulatory compliance, quality assurance and hazardous materials handling;

the possible breach of the manufacturing agreements by the third parties because of factors beyond our control; and

the possibility of termination or nonrenewal of the agreements by the third parties because of our breach of the manufacturing agreement or based on their own business priorities.

Table of Contents

Any of these factors could cause the delay or suspension of initiation or completion of clinical trials, regulatory submissions, required approvals or commercialization of our products, cause us to incur higher costs and could prevent us from commercializing our product candidates successfully. Furthermore, if our contract manufacturers fail to deliver the required commercial quantities of finished product on a timely basis and at commercially reasonable prices and we are unable to find one or more replacement manufacturers capable of production at a substantially equivalent cost, in substantially equivalent volumes and quality and on a timely basis, we would likely be unable to meet demand for our products and we would lose potential revenue. It may take a significant period of time to establish an alternative source of supply for our product candidates and to have any such new source approved by the FDA.

If we are unable to establish marketing, sales and distribution collaborations with third parties, we may not be able to commercialize LEVADEX successfully.

We plan to establish marketing, sales and distribution collaborations with third parties where appropriate. For example, if we choose to expand the marketing and sales of LEVADEX to primary care physicians beyond high prescribers, including specialists such as neurologists and headache specialists, we may establish partnerships with other companies to maximize the potential of the commercialization opportunity. Outside the United States, we may establish commercial partnerships for LEVADEX in order to effectively reach target markets in order to maximize its commercial opportunities. We also expect to face competition in our efforts to identify appropriate collaborators or partners to help commercialize LEVADEX in our target commercial areas. If we are unable to establish adequate marketing, sales and distribution collaborations to target primary care physicians, specialists and other large groups of prescribing physicians within and outside the United States, then we may not be able to achieve the full commercial opportunity for LEVADEX.

We may not be successful in maintaining or establishing development collaborations, which could adversely affect our ability to develop certain of our product candidates.

On July 8, 2009, we received a notice of termination of our license agreement with AstraZeneca related to our UDB product candidate. Our agreement with AstraZeneca provided that AstraZeneca could terminate the agreement in the event that the primary endpoints of our initial Phase 3 clinical trial of UDB were not met. Following the termination of the license agreement, we suspended development of UDB. In addition, our earlier stage product portfolio includes MAP0005 and MAP0001. We have no current intention to further develop either of these earlier stage product candidates independently. Developing pharmaceutical products, conducting clinical trials, establishing manufacturing capabilities and marketing approved products is expensive. Consequently, we may establish partnerships for further development and commercialization of these two product candidates. We expect to face competition in seeking appropriate partners. Moreover, collaboration arrangements are complex and time consuming to negotiate, document and implement and they may require substantial resources to maintain. We may not be successful in our efforts to establish and implement collaborations or other alternative arrangements, if any. The terms of any collaboration or other arrangement that we establish may not be favorable to us. In addition, any collaboration that we enter into may not be successful. If we seek partners to help develop MAP0005 and MAP0001, but are unable to reach agreements with suitable partners, we may fail to commercialize the affected product or program.

Risks Relating to Our Intellectual Property

It is difficult and costly to protect our proprietary rights, and we may not be able to ensure their protection.

Our commercial success will depend in part on obtaining and maintaining patent protection and trade secret protection of our product candidates and the methods used to manufacture them, as well as successfully defending these patents against third-party challenges. Our ability to stop third parties from making, using, selling, offering to sell or importing our products is dependent upon the extent to which we have rights under valid and enforceable patents or trade secrets that cover these activities.

Table of Contents

We license certain intellectual property from third parties that covers our product candidates. We rely on certain of these third parties to file, prosecute and maintain patent applications and otherwise protect the intellectual property to which we have a license, and we have not had and do not have primary control over these activities for certain of these patents or patent applications and other intellectual property rights. We cannot be certain that such activities by third parties have been or will be conducted in compliance with applicable laws and regulations or will result in valid and enforceable patents and other intellectual property rights. Our enforcement of certain of these licensed patents or defense of any claims asserting the invalidity of these patents would also be subject to the cooperation of the third parties.

The patent positions of pharmaceutical and biopharmaceutical companies can be highly uncertain and involve complex legal and factual questions for which important legal principles remain unresolved. No consistent policy regarding the breadth of claims allowed in biopharmaceutical patents has emerged to date in the United States. The biopharmaceutical patent situation outside the United States is even more uncertain. Changes in either the patent laws or in interpretations of patent laws in the United States and other countries may diminish the value of our intellectual property. Accordingly, we cannot predict the breadth of claims that may be allowed or enforced in the patents we own or to which we have a license from a third-party. Further, if any of our patents are deemed invalid and unenforceable, it could impact our ability to commercialize or license our technology.

The degree of future protection for our proprietary rights is uncertain because legal means afford only limited protection and may not adequately protect our rights or permit us to gain or keep our competitive advantage. For example:

others may be able to make compositions or formulations that are similar to our product candidates but that are not covered by the claims of our patents;

we might not have been the first to make the inventions covered by our pending issued patents or patent applications;

we might not have been the first to file patent applications for these inventions;

others may independently develop similar or alternative technologies or duplicate any of our technologies;

it is possible that our pending patent applications will not result in issued patents;

our issued patents may not provide us with any competitive advantages, or may be held invalid or unenforceable as a result of legal challenges by third parties;

we may not develop additional proprietary technologies that are patentable; or

the patents of others may have an adverse effect on our business.

We also may rely on trade secrets to protect our technology, especially where we do not believe patent protection is appropriate or obtainable. However, trade secrets are difficult to protect. Although we use reasonable efforts to protect our trade secrets, our employees, consultants, contractors, outside scientific collaborators and other advisors may unintentionally or willfully disclose our information to competitors. Enforcing a claim that a third party illegally obtained and is using any of our trade secrets is expensive and time consuming, and the outcome is unpredictable. In addition, courts outside the United States are sometimes less willing to protect trade secrets. Moreover, our competitors may independently develop equivalent knowledge, methods and know-how.

Table of Contents

We may incur substantial costs as a result of litigation or other proceedings relating to patent and other intellectual property rights and we may be unable to protect our rights to, or use, our technology.

If we or our partners choose to go to court to stop someone else from using the inventions claimed in our patents, that individual or company has the right to ask the court to rule that these patents are invalid and/or should not be enforced against that third party. These lawsuits are expensive and would consume time and other resources even if we were successful in stopping the infringement of these patents. In addition, there is a risk that the court will decide that these patents are not valid and that we do not have the right to stop the other party from using the inventions. There is also the risk that, even if the validity of these patents is upheld, the court will refuse to stop the other party on the ground that such other party's activities do not infringe our rights to these patents. In addition, the U.S. Supreme Court has recently invalidated some tests used by the U.S. Patent and Trademark Office in granting patents over the past 20 years. As a consequence, several issued patents may be found to contain invalid claims according to the newly revised standards. Some of our own or in-licensed patents may be subject to challenge and subsequent invalidation in a re-examination proceeding before the U.S. Patent and Trademark Office or during litigation under the revised criteria which make it more difficult to obtain patents.

Furthermore, a third party may claim that we or our manufacturing or commercialization partners are using inventions covered by the third party's patent rights and may go to court to stop us from engaging in our normal operations and activities, including making or selling our product candidates. These lawsuits are costly and could affect our results of operations and divert the attention of managerial and technical personnel. There is a risk that a court would decide that we or our commercialization partners are infringing the third party's patents and would order us or our partners to stop the activities covered by the patents. In addition, there is a risk that a court will order us or our partners to pay the other party damages for having violated the other party's patents. We have agreed to indemnify certain of our commercial partners against certain patent infringement claims brought by third parties. The biotechnology industry has produced a proliferation of patents, and it is not always clear to industry participants, including us, which patents cover various types of products or methods of use. The coverage of patents is subject to interpretation by the courts, and the interpretation is not always uniform. If we are sued for patent infringement, we would need to demonstrate that our products or methods of use either do not infringe the patent claims of the relevant patent and/or that the patent claims are invalid, and we may not be able to do this. Proving invalidity, in particular, is difficult since it requires a showing of clear and convincing evidence to overcome the presumption of validity enjoyed by issued patents.

Because some patent applications in the United States may be maintained in secrecy until the patents are issued, because patent applications in the United States and many foreign jurisdictions are typically not published until eighteen months after filing and because publications in the scientific literature often lag behind actual discoveries, we cannot be certain that others have not filed patent applications for technology covered by our issued patents or our pending applications, or that we were the first to invent the technology. Our competitors may have filed, and may in the future file, patent applications covering technology similar to ours. Any such patent application may have priority over our patent applications or patents, which could further require us to obtain rights to issued patents by others covering such technologies. If another party has filed a U.S. patent application on inventions similar to ours, we may have to participate in an interference proceeding declared by the U.S. Patent and Trademark Office to determine priority of invention in the United States. The costs of these proceedings could be substantial, and it is possible that such efforts would be unsuccessful if, unbeknownst to us, the other party had independently arrived at the same or similar invention prior to our own invention, resulting in a loss of our U.S. patent position with respect to such inventions.

Some of our competitors may be able to sustain the costs of complex patent litigation more effectively than we can because they have substantially greater resources. In addition, any uncertainties resulting from the initiation and continuation of any litigation could have a material adverse effect on our ability to raise the funds necessary to continue our operations.

Table of Contents

If we fail to comply with our obligations in our intellectual property licenses with third parties, we could lose license rights that are important to our business.

We are a party to a number of license agreements, including with Elan Pharma International Limited and with Nektar Therapeutics UK Limited, pursuant to which we license key intellectual property, including intellectual property relating to our most advanced product candidate. These existing licenses impose various diligence, milestone payment, royalty, insurance and other obligations on us. If we fail to comply with these obligations, the licensors may have the right to terminate the license, in which event we might not be able to develop or market any product that is covered by the licensed patents. If we lose such license rights that are important to our product candidate, our business may be materially adversely affected. We may enter into additional licenses in the future and if we fail to comply with obligations under those agreements, we could suffer similar consequences.

We may be subject to claims that our employees have wrongfully used or disclosed alleged trade secrets of their former employers.

As is common in the biotechnology and pharmaceutical industries, we employ individuals who were previously employed at other biotechnology or pharmaceutical companies, including our competitors or potential competitors. Although no claims against us are currently pending, we may be subject to claims that these employees or we have inadvertently or otherwise used or disclosed trade secrets or other proprietary information of their former employers. Litigation may be necessary to defend against these claims. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to management.

Risks Related to Employee Matters and Managing Growth

We may need to increase the size of our company, and we may experience difficulties in managing growth.

As of June 30, 2009, we had 95 full-time employees. We may need to continue to expand our managerial, operational, administrative financial and other resources in order to manage and fund our operations and clinical trials, continue our development activities and commercialize our product candidates. To support this growth, we may hire additional employees within the next 12 months. Our management, personnel, systems and facilities currently in place may not be adequate to support this future growth. Our need to effectively manage our operations, growth and various projects requires that we:

manage our Phase 3 clinical program for LEVADEX and other additional trials effectively, which we anticipate will be conducted with numerous vendors at numerous clinical sites; and

continue to improve our operational, financial and management controls, reporting systems and procedures.

We may be unable to successfully implement these tasks on a larger scale and, accordingly, may not achieve our development and commercialization goals.

We may not be able to manage our business effectively if we are unable to attract and retain key personnel.

We may not be able to attract or retain qualified management and scientific and clinical personnel in the future due to competition for qualified personnel among biotechnology, pharmaceutical and other businesses, particularly in the Silicon Valley area of California. If we are not able to attract and retain necessary personnel to accomplish our business objectives, we may experience constraints that will significantly impede the achievement of our development objectives, our ability to raise additional capital and our ability to implement our business strategy.

Table of Contents

Our industry has experienced a high rate of turnover of management personnel in recent years. We are highly dependent on the development, regulatory, commercialization and product acquisition expertise of our senior management, particularly Timothy S. Nelson, our President and Chief Executive Officer, and Thomas A. Armer, our co-founder and Chief Scientific Officer. If we lose one or more of these key employees, our ability to implement our business strategy successfully could be seriously harmed. Replacing key employees may be difficult and may take an extended period of time because of the limited number of individuals in our industry with the breadth of skills and experience required to develop, obtain regulatory approval of and commercialize products successfully. Competition to hire from this limited pool is intense, and we may be unable to hire, train, retain or motivate these additional key personnel.

In addition, we have scientific and clinical advisors who assist us in our product development and clinical strategies. These advisors are not our employees and may have commitments to, or consulting or advisory contracts with, other entities that may limit their availability to us, or may have arrangements with other companies to assist in the development of products that may compete with ours. Because our business depends on certain key personnel and advisors, the loss of such personnel and advisors could weaken our management team and we may experience difficulty in attracting and retaining qualified personnel and advisors.

Risks Relating to Owning Our Common Stock

Our executive officers, directors and principal stockholders have the ability to control all matters submitted to our stockholders for approval.

Our executive officers, directors and stockholders who own more than 5% of our outstanding common stock together control approximately 71% of our outstanding common stock. If these persons were to choose to act together, they would be able to control all matters submitted to our stockholders for approval, as well as our management and affairs. For example, these persons, if they choose to act together, will control the election of directors and approval of any merger, consolidation, sale of all or substantially all of our assets or other business combination or reorganization. This concentration of voting power could delay or prevent an acquisition of us on terms that other stockholders may desire. The interests of this group of stockholders may not always coincide with your interests or the interests of other stockholders and they may act in a manner that advances their best interests and not necessarily those of other stockholders, including obtaining a premium value for their common stock, and might affect the prevailing market price for our common stock.

Our share price may be volatile which may cause the value of our common stock to decline and subject us to securities class action litigation.

The market price of shares of our common stock could be subject to wide fluctuations in response to many risk factors listed in this section, and others beyond our control, including:

actual or anticipated fluctuations in our financial condition and operating results;

status and/or results of our clinical trials;

results of clinical trials of our competitors' products;

regulatory actions with respect to our products or our competitors' products;

actions and decisions by our collaborators or partners;

actual or anticipated changes in our growth rate relative to our competitors;

actual or anticipated fluctuations in our competitors' operating results or changes in their growth rate;

S-24

Table of Contents

competition from existing products, new products or generics that may emerge;

issuance of new or updated research or reports by securities analysts;

fluctuations in the valuation of companies perceived by investors to be comparable to us;

share price and volume fluctuations attributable to inconsistent trading volume levels of our shares;

market conditions for biopharmaceutical stocks in general; and

general economic and market conditions.

As widely reported, financial markets in the United States, Europe and Asia have been experiencing extreme disruption in recent months, including, among other things, extreme volatility in security prices, severely diminished liquidity and credit availability, rating downgrades of certain investments and declining valuations of others. Governments have taken unprecedented actions intended to address extreme market conditions that include severely restricted credit and declines in real estate values.

Fluctuations in the market prices of many equity securities often have been unrelated or disproportionate to the operating performance of those companies. These broad market and industry fluctuations, as well as general economic, political and market conditions such as recessions, interest rate changes or international currency fluctuations, may negatively impact the market price of shares of our common stock.

If securities or industry analysts do not publish research or reports about our business, or publish negative reports about our business, our stock price and trading volume could decline.

The trading market for our common stock depends on the research and reports that securities or industry analysts publish about us or our business. We do not have any control over these analysts. If one or more of the analysts who cover us downgrade our stock or change their opinion of our stock, our stock price would likely decline. If one or more of these analysts cease coverage of our company or fail to regularly publish reports on us, we could lose visibility in the financial markets, which could cause our stock price or trading volume to decline.

Future sales of our common stock may cause our stock price to decline.

Persons who were our stockholders prior to the sale of shares in our IPO continue to hold a substantial number of shares of our common stock that they are now able to sell in the public market. Significant portions of these shares are held by a small number of stockholders. Sales by our current stockholders of a substantial number of shares, or the expectation that such sales may occur, could significantly reduce the market price of our common stock. Moreover, the holders of a substantial number of shares of common stock may have rights, subject to certain conditions, to require us to file registration statements to permit the resale of their shares in the public market or to include their shares in registration statements that we may file for ourselves or other stockholders.

We have also registered or plan to register all common stock that we may issue under our employee benefits plans. As a result, these shares can be freely sold in the public market upon issuance, subject to restrictions under the securities laws. In addition, our directors and executive officers may establish programmed selling plans under Rule 10b5-1 of the Exchange Act for the purpose of effecting sales of our common stock. If any of these events cause a large number of our shares to be sold in the public market, the sales could reduce the trading price of our common stock and impede our ability to raise future capital.

We will continue to incur significant increased costs as a result of operating as a public company.

As a public company, we will continue to incur significant legal, accounting and other expenses to comply with the laws and regulations affecting public companies, including the provisions of the

Table of Contents

Sarbanes-Oxley Act of 2002 and rules adopted by the Securities and Exchange Commission and by the NASDAQ Global Market. In addition, any changes in such regulations will result in increased costs to us as we respond to these requirements. For example, we must use certain required internal controls and disclosure controls and procedures, as required by Section 404 of the Sarbanes-Oxley Act of 2002. Our testing, or the subsequent testing by our independent registered public accounting firm, may reveal deficiencies in our internal controls over financial reporting that are deemed to be material weaknesses. Our compliance with Section 404 will require that we incur substantial accounting expense and expend significant management efforts. In addition, we will continue to bear all of the internal and external costs of preparing and distributing periodic public reports in compliance with our obligations under the securities laws.

Changing laws, regulations and standards relating to corporate governance and public disclosure, including the Sarbanes-Oxley Act of 2002 and related regulations implemented by the Securities and Exchange Commission and The Nasdaq Global Market, are creating uncertainty for public companies, increasing legal and financial compliance costs and making some activities more time consuming. We are currently evaluating and monitoring developments with respect to new and proposed rules and cannot predict or estimate the amount of additional costs we may incur or the timing of such costs. These laws, regulations and standards are subject to varying interpretations, in many cases due to their lack of specificity, and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices. We will continue to invest resources to comply with evolving laws, regulations and standards, and this investment may result in increased general and administrative expenses and a diversion of management's time and attention from potentially revenue-generating activities to compliance activities. If our efforts to comply with new laws, regulations and standards differ from the activities intended by regulatory or governing bodies due to ambiguities related to practice, regulatory authorities may initiate legal proceedings against us and our business may be harmed.

Anti-takeover provisions in our charter documents and under Delaware law could make an acquisition of us, which may be beneficial to our stockholders, more difficult and may prevent attempts by our stockholders to replace or remove our current management.

Provisions in our amended and restated certificate of incorporation and our bylaws may delay or prevent an acquisition of us. In addition, these provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors, who are responsible for appointing the members of our management team. In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which prohibits, with some exceptions, stockholders owning in excess of 15% of our outstanding voting stock from merging or combining with us. Finally, our charter documents establish advanced notice requirements for nominations for election to our board of directors and for proposing matters that can be acted upon at stockholder meetings. Although we believe these provisions together provide for an opportunity to receive higher bids by requiring potential acquirers to negotiate with our board of directors, they would apply even if the offer may be considered beneficial by some stockholders.

We have never paid dividends on our common stock, and because we do not anticipate paying any cash dividends in the foreseeable future, capital appreciation, if any, of our common stock will be your sole source of gain on an investment in our stock.

We have never paid cash dividends on our common stock and we currently intend to retain our cash and future earnings, if any, to fund the development and growth of our business. We do not anticipate paying any cash dividends on our common stock in the foreseeable future. As a result, capital appreciation, if any, of our common stock will be your sole source of gain for the foreseeable future.

Table of Contents

We may become involved in securities class action litigation that could divert management's attention and harm our business.

The stock markets have from time to time experienced significant price and volume fluctuations that have affected the market prices for the common stock of biotechnology and biopharmaceutical companies. These broad market fluctuations may cause the market price of our common stock to decline. In the past, securities class action litigation has often been brought against a company following a decline in the market price of its securities. This risk is especially relevant for us because biotechnology and biopharmaceutical companies have experienced significant stock price volatility in recent years. We may become involved in this type of litigation in the future. Litigation often is expensive and diverts management's attention and resources, which could adversely affect our business.

S-27

Table of Contents**USE OF PROCEEDS**

The net proceeds from the sale of the common stock offered hereby are estimated to be approximately \$31.8 million (approximately \$36.4 million if the underwriters exercise in full their over-allotment option to purchase additional shares of common stock), after deduction of estimated offering expenses and the underwriter's discounts and commissions, based on an assumed offering price of \$9.80 per share (which was the closing price on August 4, 2009).

We intend to use the net proceeds from this offering for general corporate purposes, focusing on clinical development of LEVADEX.

The foregoing represents our intentions based upon our present plans and business conditions. The occurrence of unforeseen events or changed business conditions, however, could result in the application of the proceeds of the offering in a manner other than as described in this prospectus supplement. Pending the application of the net proceeds, we expect to invest such proceeds in short-term, interest-bearing instruments.

PRICE RANGE OF COMMON STOCK

Our common stock is listed on The Nasdaq Global Market under the symbol MAPP. The following table sets forth, for the quarterly periods indicated, the high and low sales price per share of the common stock as reported on The Nasdaq Global Market:

	High	Low
Year Ended December 31, 2007		
Fourth Quarter (beginning October 5, 2007)	\$ 20.00	\$ 13.01
Year Ended December 31, 2008		
First Quarter	\$ 17.69	\$ 10.39
Second Quarter	14.80	9.75
Third Quarter	12.45	2.40
Fourth Quarter	10.44	1.75
Year Ended December 31, 2009		
First Quarter	\$ 13.08	\$ 1.57
Second Quarter	13.85	2.00
Third Quarter (through August 4, 2009)	12.52	9.28

On August 4, 2009, the last reported sales price of our common stock was \$9.80 per share. On August 4, 2009, we had 59 holders of record of our common stock.

DILUTION

Our net tangible book value as of June 30, 2009 was \$1.3 million, or approximately \$0.06 per share. Net tangible book value is total assets minus the sum of liabilities and intangible assets. Net tangible book value per share is net tangible book value divided by the total number of shares of common stock outstanding.

Dilution in net tangible book value per share represents the difference between the amount per share paid by purchasers of shares of common stock in this offering and the net tangible book value per share of our common stock immediately after this offering. After giving effect to our sale of 3,500,000 shares of our common stock in this offering at an assumed offering price of \$9.80 per share (which was the closing price on August 4, 2009) and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of June 30, 2009 would have been approximately \$33.1 million, or \$1.35 per share. This represents an immediate

Table of Contents

increase in net tangible book value of \$1.29 per share to existing stockholders and immediate dilution in net tangible book value of \$8.45 per share to new investors purchasing our common stock in this offering at the offering price. The following table illustrates this dilution on a per share basis:

Offering price per share	\$ 9.80
Net tangible book value per share as of June 30, 2009	\$ 0.06
Increase in net tangible book value per share attributable to this offering	1.29
Pro forma net tangible book value per share as of June 30, 2009 after giving effect to this offering	1.35
Dilution per share to investors in this offering	\$ 8.45

If the underwriters exercise their over-allotment option in full, the pro forma as adjusted net tangible book value per share after giving effect to this offering would be \$1.51 per share, and the dilution in pro forma net tangible book value per share to investors in this offering would be \$8.29 per share.

The number of shares of our common stock in the computations above excludes:

3,911,830 shares of common stock issuable upon the exercise of options outstanding as of June 30, 2009 at a weighted average exercise price of \$7.09 per share;

73,989 shares of common stock issuable upon the exercise of warrants outstanding as of June 30, 2009 at an exercise price of \$7.43 per share;

1,739,497 shares of common stock reserved for future issuance under our 2007 Equity Incentive Plan as of June 30, 2009; and

471,469 shares of common stock reserved for future issuance under our Employee Stock Purchase Plan as of June 30, 2009.

To the extent that outstanding options or warrants are exercised, you will experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

DIVIDEND POLICY

We have never declared or paid dividends since our initial public offering in October 2007 and do not anticipate paying any dividends on our common stock in the foreseeable future.

Table of Contents**CAPITALIZATION**

The following table sets forth our cash, cash equivalents and short-term investments and capitalization as of June 30, 2009:

on an actual basis; and

on an as adjusted basis to give effect to the issuance and sale of 3,500,000 shares of our common stock in this offering at an assumed offering price of \$9.80 per share (which was the closing price on August 4, 2009), after deducting the underwriting discounts and commissions and before estimated offering expenses (assuming no exercise of the underwriters' over-allotment option to purchase additional shares).

This table should be read in conjunction with our consolidated financial statements and related notes incorporated by reference in this prospectus supplement. See [Where You Can Find More Information](#).

	As of June 30, 2009	
	Actual	As adjusted
	(In thousands)	
Cash, cash equivalents and short-term investments	\$ 54,754	\$ 86,521
Debt, less current portion	10,890	10,890
Stockholders' equity		
Common stock, \$0.01 par value, 100,000,000 shares authorized, 20,878,149 shares issued and outstanding, actual; 24,378,149 shares issued and outstanding, as adjusted(1)	203	207
Preferred Stock, \$0.01 par value, 5,000,000 shares authorized, no shares issued and outstanding, actual and as adjusted		
Additional paid-in capital	191,873	223,637
Deficit accumulated during the development stage	(190,783)	(190,783)
Total stockholders' equity	1,293	33,060
Total capitalization	\$ 12,183	\$ 43,950

(1) Includes 3,500,000 shares to be issued pursuant to this offering. The number of actual and as adjusted shares shown as issued and outstanding in the table is based on the number of shares of our common stock outstanding as of June 30, 2009 and excludes:

3,911,830 shares of common stock issuable upon the exercise of options outstanding as of June 30, 2009 at a weighted average exercise price of \$7.09 per share;

73,989 shares of common stock issuable upon the exercise of warrants outstanding as of June 30, 2009 at an exercise price of \$7.43 per share;

1,739,497 shares of common stock reserved for future issuance under our 2007 Equity Incentive Plan as of June 30, 2009; and

471,469 shares of common stock reserved for future issuance under our Employee Stock Purchase Plan as of June 30, 2009.

S-30

Table of Contents

DESCRIPTION OF COMMON STOCK

*The following summary of the terms of our common stock does not purport to be complete and is subject to and qualified in its entirety by reference to our Amended and Restated Certificate of Incorporation, or certificate of incorporation, and Amended and Restated Bylaws, or bylaws, copies of which are on file with the Commission as exhibits to registration statements previously filed by us. See *Where You Can Find More Information*.*

General

Our authorized capital stock consists of 100,000,000 shares of common stock, \$0.01 par value per share, and 5,000,000 shares of preferred stock in one or more series, \$0.01 par value per share. The only equity securities currently outstanding are shares of common stock.

Common Stock

As of August 4, 2009, we had 20,909,149 shares of common stock outstanding. As of August 4, 2009, we had 3,832,841 shares of common stock reserved for issuance upon exercise of outstanding stock options granted under our 2005 Equity Incentive Plan and our 2007 Equity Award Plan. As of August 4, 2009, we had warrants to purchase an aggregate of 73,989 shares of our common stock outstanding.

Voting Rights

Holders of our common stock are entitled to one vote per share on all matters to be voted upon by the stockholders. Holders of our common stock are not entitled to cumulative voting rights with respect to the election of directors, which means that the holders of a majority of the shares voted can elect all of the directors then standing for election.

Dividends

Subject to limitations under Delaware law and preferences that may apply to any outstanding shares of preferred stock, holders of our common stock are entitled to receive ratably such dividends or other distributions, if any, as may be declared by our board of directors out of funds legally available for them.

Liquidation

In the event of our liquidation, dissolution or winding up, holders of our common stock are entitled to share ratably in all assets remaining after payment of liabilities, subject to the liquidation preference of any outstanding preferred stock.

Rights and Preferences

Our common stock has no preemptive, conversion or other rights to subscribe for additional securities. There are no redemption or sinking fund provisions applicable to our common stock. The rights, preferences and privileges of holders of common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of preferred stock that we may designate and issue in the future.

Fully Paid and Non-Assessable

All outstanding shares of our common stock are validly issued, fully paid and non-assessable.

Table of Contents

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company. The transfer agent and registrar for any series or class of preferred stock will be set forth in the applicable prospectus supplement.

Nasdaq Global Market

Our common stock is traded on The Nasdaq Global Market under the symbol MAPP.

S-32

Table of Contents

CERTAIN MATERIAL UNITED STATES FEDERAL INCOME TAX CONSEQUENCES TO NON-U.S. HOLDERS

The following is a summary of certain material United States federal income tax consequences to non-U.S. holders (as defined below) of the acquisition, ownership and disposition of our common stock issued pursuant to this offering. This discussion is not a complete analysis of all of the potential United States federal income tax consequences relating thereto, nor does it address any estate and gift tax consequences or any tax consequences arising under any state, local or foreign tax laws, or any other United States federal tax laws. This discussion is based on the Internal Revenue Code of 1986, as amended, or the Code, Treasury Regulations promulgated thereunder, judicial decisions, and published rulings and administrative pronouncements of the Internal Revenue Service, or IRS, all as in effect as of the date of this offering. These authorities may change, possibly retroactively, resulting in United States federal income tax consequences different from those discussed below. No ruling has been or will be sought from the IRS with respect to the matters discussed below, and there can be no assurance that the IRS will not take a contrary position regarding the tax consequences of the acquisition, ownership or disposition of our common stock, or that any such contrary position would not be sustained by a court.

This discussion is limited to non-U.S. holders who purchase our common stock issued pursuant to this offering and who hold our common stock as a capital asset within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not address all of the United States federal income tax consequences that may be relevant to a particular holder in light of such holder's particular circumstances. This discussion also does not consider any specific facts or circumstances that may be relevant to holders subject to special rules under the United States federal income tax laws, including, without limitation, U.S. expatriates, partnerships or other pass-through entities, real estate investment trusts, regulated investment companies, controlled foreign corporations, passive foreign investment companies, corporations that accumulate earnings to avoid United States federal income tax, financial institutions, insurance companies, brokers, dealers or traders in securities, commodities or currencies, tax-exempt organizations, tax-qualified retirement plans, persons subject to the alternative minimum tax, persons that own, or have owned, actually or constructively, more than 5% of our common stock, and persons holding our common stock as part of a hedging or conversion transaction or straddle, or a constructive sale, or other risk reduction strategy.

THIS SUMMARY OF CERTAIN MATERIAL UNITED STATES FEDERAL INCOME TAX CONSEQUENCES IS FOR GENERAL INFORMATION ONLY AND IS NOT TAX ADVICE. PROSPECTIVE INVESTORS ARE URGED TO CONSULT THEIR TAX ADVISORS REGARDING THE PARTICULAR UNITED STATES FEDERAL INCOME TAX CONSEQUENCES TO THEM OF ACQUIRING, OWNING AND DISPOSING OF OUR COMMON STOCK, AS WELL AS ANY TAX CONSEQUENCES ARISING UNDER ANY STATE, LOCAL OR FOREIGN TAX LAWS, ANY OTHER UNITED STATES FEDERAL TAX LAWS, AND ANY APPLICABLE TAX TREATY.

Definition of Non-U.S. Holder

For purposes of this discussion, a non-U.S. holder is any beneficial owner of our common stock that is neither a U.S. person (as defined below) nor a partnership (or other entity treated as a partnership) for United States federal income tax purposes. A U.S. person is any of the following:

an individual who is a citizen or resident of the United States;

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

an estate the income of which is subject to United States federal income tax regardless of its source; or

Table of Contents

a trust (1) whose administration is subject to the primary supervision of a United States court and which has one or more United States persons who have the authority to control all substantial decisions of the trust, or (2) that has a valid election in effect under applicable Treasury Regulations to be treated as a U.S. person.

If a partnership (or other entity treated as a partnership for U.S. federal income tax purposes) is a beneficial owner of our common stock, the tax treatment of a partner in such partnership will depend on the status of such partner and the activities of such partnership. Such partners and partnerships should consult their tax advisors regarding the U.S. federal income tax consequences to them of acquiring, owning and disposing of our common stock.

Distributions on Our Common Stock

If we make cash or other property distributions on our common stock, such distributions will constitute dividends for United States federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under United States federal income tax principles. Amounts not treated as dividends for United States federal income tax purposes will constitute a return of capital and will first be applied against and reduce a holder's adjusted tax basis in the common stock, but not below zero. Distributions in excess of our current and accumulated earnings and profits and in excess of a holder's adjusted tax basis in the common stock will be treated as gain realized on the sale or other disposition of the common stock and will be treated as described under "Gain on Disposition of Our Common Stock" below.

Dividends paid to a non-U.S. holder of our common stock generally will be subject to United States federal withholding tax at a rate of 30% of the gross amount of the dividends, or such lower rate specified by an applicable income tax treaty. To receive the benefit of a reduced treaty rate, a non-U.S. holder must furnish to us or our paying agent a valid IRS Form W-8BEN (or applicable successor form) certifying such holder's qualification for the reduced rate. This certification must be provided to us or our paying agent prior to the payment of dividends and must be updated periodically. Non-U.S. holders that do not timely provide us or our paying agent with the required certification, but which qualify for a reduced treaty rate, may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS.

If a non-U.S. holder holds our common stock in connection with the conduct of a trade or business in the United States, and dividends paid on the common stock are effectively connected with such holder's United States trade or business, the non-U.S. holder will be exempt from United States federal withholding tax. To claim the exemption, the non-U.S. holder must furnish to us or our paying agent a properly executed IRS Form W-8ECI (or applicable successor form).

Any dividends paid on our common stock that are effectively connected with a non-U.S. holder's United States trade or business (or if required by an applicable income tax treaty, attributable to a permanent establishment maintained by the non-U.S. holder in the United States) will be subject to United States federal income tax on a net income basis at the regular graduated United States federal income tax rates generally in the same manner as if such holder were a resident of the United States, unless an applicable income tax treaty provides otherwise. A non-U.S. holder that is a foreign corporation also may be subject to a branch profits tax equal to 30% (or such lower rate specified by an applicable income tax treaty) of a portion of its effectively connected earnings and profits for the taxable year. Non-U.S. holders are urged to consult any applicable income tax treaties that may provide for different rules.

A non-U.S. holder who claims the benefit of an applicable income tax treaty generally will be required to satisfy applicable certification and other requirements prior to the distribution date. Non-U.S. holders should consult their tax advisors regarding their entitlement to benefits under a relevant income tax treaty.

Gain on Disposition of Our Common Stock

A non-U.S. holder generally will not be subject to United States federal income tax on any gain realized upon the sale or other disposition of our common stock, unless:

Table of Contents

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

the non-U.S. holder is a nonresident alien individual present in the United States for 183 days or more during the taxable year of the disposition, and certain other requirements are met; or

our common stock constitutes a United States real property interest by reason of our status as a United States real property holding corporation, or USRPHC, for United States federal income tax purposes at any time within the shorter of the five-year period preceding the disposition or the non-U.S. holder's holding period for our common stock, and the common stock has ceased to be traded on an established securities market prior to the beginning of the calendar year in which the sale or other disposition occurs. The determination of whether we are a USRPHC depends on the fair market value of our United States real property interests relative to the fair market value of our other trade or business assets and our foreign real property interests.

We believe we currently are not, and we do not anticipate becoming, a USRPHC for United States federal income tax purposes.

Unless an applicable income tax treaty provides otherwise, gain described in the first bullet point above will be subject to United States federal income tax on a net income basis at the regular graduated United States federal income tax rates generally in the same manner as if such holder were a resident of the United States. A non-U.S. holder that is a foreign corporation also may be subject to a branch profits tax equal to 30% (or such lower rate specified by an applicable income tax treaty) of a portion of its effectively connected earnings and profits for the taxable year. Non-U.S. holders are urged to consult any applicable income tax treaties that may provide for different rules.

Gain described in the second bullet point above will be subject to United States federal income tax at a flat 30% rate (or such lower rate specified by an applicable income tax treaty), but may be offset by United States source capital losses (even though the individual is not considered a resident of the United States).

Information Reporting and Backup Withholding

We must report annually to the IRS and to each non-U.S. holder the amount of distributions on our common stock paid to such holder and the amount of any tax withheld with respect to those distributions. These information reporting requirements apply even if no withholding was required because the distributions were effectively connected with the holder's conduct of a United States trade or business, or withholding was reduced or eliminated by an applicable income tax treaty. This information also may be made available under a specific treaty or agreement with the tax authorities in the country in which the non-U.S. holder resides or is established. Backup withholding, currently at a 28% rate, however, generally will not apply to distribution payments to a non-U.S. holder of our common stock provided the non-U.S. holder furnishes to us or our paying agent the required certification as to its non-U.S. status, such as by providing a valid IRS Form W-8BEN or IRS Form W-8ECI, or certain other requirements are met. Notwithstanding the foregoing, backup withholding may apply if either we or our paying agent has actual knowledge, or reason to know, that the holder is a U.S. person that is not an exempt recipient.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules may be allowed as a refund or a credit against a non-U.S. holder's United States federal income tax liability, provided the required information is timely furnished to the IRS.

Table of Contents

UNDERWRITING

Subject to the terms and conditions of the underwriting agreement, the underwriters named below, through their representative Deutsche Bank Securities Inc., have severally agreed to purchase from us the following respective number of shares of common stock at an offering price less the underwriting discounts and commissions set forth on the cover page of this prospectus supplement:

Underwriters	Number of Shares
Deutsche Bank Securities Inc.	
Leerink Swann LLC	
Total	3,500,000

The underwriting agreement provides that the obligations of the several underwriters to purchase the shares of common stock offered hereby are subject to certain conditions precedent and that the underwriters will purchase all of the shares of common stock offered by this prospectus supplement, other than those covered by the over-allotment option described below, if any of these shares are purchased.

We have been advised by the representative of the underwriters that the underwriters propose to offer the shares of common stock to the public at the offering price set forth on the cover of this prospectus supplement and to dealers at a price that represents a concession not in excess of \$ _____ per share under the offering price. The underwriters may allow, and these dealers may re-allow, a concession of not more than \$ _____ per share to other dealers.

We have granted to the underwriters an option, exercisable not later than 30 days after the date of this prospectus supplement, to purchase up to 500,000 additional shares of common stock at the offering price less the underwriting discounts and commissions set forth on the cover page of this prospectus supplement. The underwriters may exercise this option only to cover over-allotments made in connection with the sale of the common stock offered by this prospectus supplement. To the extent that the underwriters exercise this option, each of the underwriters will become obligated, subject to conditions, to purchase approximately the same percentage of these additional shares of common stock as the number of shares of common stock to be purchased by it in the above table bears to the total number of shares of common stock offered by this prospectus supplement. We will be obligated, pursuant to the option, to sell these additional shares of common stock to the underwriters to the extent the option is exercised. If any additional shares of common stock are purchased, the underwriters will offer the additional shares on the same terms as those on which the shares are being offered.

The underwriting discounts and commissions per share are equal to the offering price per share of common stock less the amount paid by the underwriters to us per share of common stock. The underwriting discounts and commissions are _____ % of the offering price. We have agreed to pay the underwriters the following discounts and commissions, assuming either no exercise or full exercise by the underwriters of the underwriters' over-allotment option:

	Fee per share	Total Fees	
		Without Exercise of Over-Allotment Option	With Full Exercise of Over-Allotment Option
Discounts and commissions paid by us	\$	\$	\$

Table of Contents

In addition, we estimate that our share of the total expenses of this offering, excluding underwriting discounts and commissions, will be approximately \$475,000.

We have agreed to indemnify the underwriters against some specified types of liabilities, including liabilities under the Securities Act, and to contribute to payments the underwriters may be required to make in respect of any of these liabilities.

Each of our officers and directors, and certain significant stockholders, have agreed not to offer, sell, contract to sell or otherwise dispose of, or enter into any transaction that is designed to, or could be expected to, result in the disposition of any shares of our common stock or other securities convertible into or exchangeable or exercisable for shares of our common stock or derivatives of our common stock owned by these persons prior to this offering or common stock issuable upon exercise of options or warrants held by these persons for a period of 60 days after the effective date of the registration statement of which this prospectus supplement is a part without the prior written consent of Deutsche Bank Securities Inc. This consent may be given at any time without public notice. Transfers or dispositions can be made during the lock-up period in the case of gifts or for estate planning purposes where the donee signs a lock-up agreement, and for shares of common stock acquired in open market transactions after the completion of this offering. In addition, any director or officer who has an existing trading plan for purposes of complying with Rule 10b5-1(c)(1) under the Exchange Act may dispose of shares of common stock or securities convertible into or exchangeable for shares of common stock pursuant to the terms of any such pre-existing plan after the expiration of a period of 30 days after the date of this prospectus supplement. Our directors and officers and certain significant stockholders may also enter into a trading plan for purposes of complying with Rule 10b5-1(c)(1) under the Exchange Act during the 60-day period set forth in this paragraph provided that any sales, transfers or dispositions under such trading plan will not occur until 30 days after the date of this prospectus supplement. We have entered into a similar agreement with the representative of the underwriters except that without such consent we may grant options and sell shares pursuant to our employee benefit plans. There are no agreements between the representatives and any of our stockholders or affiliates releasing them from these lock-up agreements prior to the expiration of the 60-day period.

The representative of the underwriters has advised us that the underwriters do not intend to confirm sales to any account over which they exercise discretionary authority.

In connection with the offering, the underwriters may purchase and sell shares of our common stock in the open market. These transactions may include short sales, purchases to cover positions created by short sales and stabilizing transactions.

Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in the offering. Covered short sales are sales made in an amount not greater than the underwriters' option to purchase additional shares of common stock from us in the offering. The underwriters may close out any covered short position by either exercising their option to purchase additional shares or purchasing shares in the open market. In determining the source of shares to close out the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the over-allotment option.

Naked short sales are any sales in excess of the over-allotment option. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if underwriters are concerned that there may be downward pressure on the price of the shares in the open market prior to the completion of the offering.

Stabilizing transactions consist of various bids for or purchases of our common stock made by the underwriters in the open market prior to the completion of the offering.

Table of Contents

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

Purchases to cover a short position and stabilizing transactions may have the effect of preventing or slowing a decline in the market price of our common stock. Additionally, these purchases, along with the imposition of the penalty bid, may stabilize, maintain or otherwise affect the market price of our common stock. As a result, the price of our common stock may be higher than the price that might otherwise exist in the open market. These transactions may be effected on The Nasdaq Global Market, in the over-the-counter market or otherwise.

A prospectus supplement in electronic format is being made available on Internet web sites maintained by one or more of the lead underwriters of this offering and may be made available on web sites maintained by other underwriters. Other than the prospectus supplement in electronic format, the information on any underwriter's web site and any information contained in any other web site maintained by an underwriter is not part of the prospectus supplement, the accompanying prospectus or the registration statement of which the prospectus supplement forms a part.

European Economic Area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a Relevant Member State), with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State (the Relevant Implementation Date) an offer of the shares to the public may not be made in that Relevant Member State prior to the publication of a prospectus in relation to the shares which has been approved by the competent authority in that Relevant Member State or, where appropriate, approved in another Relevant Member State and notified to the competent authority in that Relevant Member State, all in accordance with the Prospectus Directive, except that an offer to the public in that Relevant Member State of any shares may be made at any time under the following exemptions under the Prospectus Directive if they have been implemented in the Relevant Member State:

(a) to legal entities which are authorised or regulated to operate in the financial markets or, if not so authorised or regulated, whose corporate purpose is solely to invest in securities;

(b) to any legal entity which has two or more of (1) an average of at least 250 employees during the last financial year; (2) a total balance sheet of more than 43,000,000 and (3) an annual net turnover of more than 50,000,000, as shown in its last annual or consolidated accounts; or

(c) in any other circumstances falling within Article 3(2) of the Prospectus Directive;

provided that no such offer of shares shall result in a requirement for the publication by us or any underwriter of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an offer of shares to the public in relation to any shares in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the shares to be offered so as to enable an investor to decide to purchase or subscribe the shares, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State and the expression Prospectus Directive means Directive 2003/71/EC and includes any relevant implementing measure in each Relevant Member State.

Table of Contents

United Kingdom

Each underwriter has represented and agreed that (i) it has not offered or sold and, prior to the expiration of the period of six months from the closing date of this offering, will not offer or sell any shares of our common stock to persons in the United Kingdom except to persons whose ordinary activities involve them in acquiring, holding, managing or disposing of investments (as principal or agent) for the purposes of their businesses or otherwise in circumstances which have not resulted and will not result in an offer to the public in the United Kingdom within the meaning of the Public Offers of Securities Regulations 1995; (ii) it has complied with and will comply with all applicable provisions of the Financial Services Act 1986 with respect to anything done by it in relation to the shares of our common stock in, from or otherwise involving the United Kingdom; and (iii) it has only issued or passed on and will only issue or pass on in the United Kingdom, any document received by it in connection with the issue of the shares of our common stock to a person who is of a kind described in Article 11(3) of the Financial Services Act 1986 (Investment Advertisements) (Exemptions) Order 1996 or is a person to whom such document may otherwise lawfully be issued or passed on.

S-39

Table of Contents

VALIDITY OF THE SECURITIES

Latham & Watkins LLP, Menlo Park, California, will pass upon the validity of the issuance and sale of the securities on behalf of MAP Pharmaceuticals, Inc. Latham & Watkins LLP and certain attorneys and investment funds affiliated with the firm collectively own less than 0.1% of the shares of our common stock. The underwriters are represented by Cooley Godward Kronish LLP.

EXPERTS

The financial statements and management's assessment of the effectiveness of internal control over financial reporting (which is included in Management's Report on Internal Control Over Financial Reporting) incorporated in this prospectus supplement by reference to the Annual Report on Form 10-K, as amended, for the year ended December 31, 2008 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC's website at www.sec.gov. You may also read and copy any document we file with the SEC at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the public reference rooms. We maintain a website at www.mappharma.com. The information contained on our website is not incorporated by reference in this prospectus supplement and the accompanying prospectus and you should not consider it a part of this prospectus supplement and the accompanying prospectus.

The SEC allows us to incorporate by reference the information we file with them which means that we can disclose important information to you by referring you to those documents instead of having to repeat the information in this prospectus supplement. The information incorporated by reference is considered to be part of this prospectus supplement, and later information that we file with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below and any future information filed (rather than furnished) with the SEC under Sections 13(a), 13(c), 14, or 15(d) of the Exchange Act between the date of this prospectus supplement and the termination of the offering, provided, however, that we are not incorporating any information furnished under any of Item 2.02 or Item 7.01 of any current report on Form 8-K:

our Annual Report on Form 10-K, as amended, for the fiscal year ended December 31, 2008;

our Quarterly Reports on Form 10-Q for the fiscal quarters ended March 31, 2009 and June 30, 2009;

our Current Reports on Form 8-K dated January 12, 2009, January 26, 2009, February 3, 2009, February 13, 2009, February 23, 2009 (with respect to Item 8.01), March 23, 2009, May 26, 2009, and July 9, 2009; and

the description of the our common stock contained in our Registration Statement on Form 8-A filed with the SEC on October 2, 2007.

Table of Contents

You may request a copy of any documents incorporated by reference in this prospectus supplement, at no cost, by writing or calling us at the following address and telephone number:

MAP Pharmaceuticals, Inc.

Attn: Corporate Secretary

2400 Bayshore Parkway, Suite 200

Mountain View, CA 94043

(650) 386-3100

Exhibits to the filings will not be sent, however, unless those exhibits have specifically been incorporated by reference in this prospectus supplement.

S-41

Table of Contents

PROSPECTUS

**MAP Pharmaceuticals, Inc.
Debt Securities, Common Stock,
Preferred Stock and Warrants**

We may offer and sell the securities from time to time in one or more offerings. This prospectus provides you with a general description of the securities we may offer.

Each time we sell securities, we will provide a supplement to this prospectus that contains specific information about the offering and the amounts, prices and terms of the securities. The supplement may also add, update or change information contained in this prospectus. You should carefully read this prospectus and the accompanying prospectus supplement before you invest in any of our securities.

We may offer and sell the following securities:

debt securities;

common stock;

preferred stock; and

warrants.

The securities may be offered directly by us, through agents designated from time to time by us or to or through underwriters or dealers. If any agents, dealers or underwriters are involved in the sale of any of the securities, their names and any applicable purchase price, fee, commission or discount arrangement between or among them will be set forth, or will be calculable from the information set forth, in the applicable prospectus supplement. See the sections entitled About This Prospectus and Plan of Distribution for more information. No securities may be sold without delivery of this prospectus and the applicable prospectus supplement describing the method and terms of the offering of such securities.

See Risk Factors on page 1 for information you should consider before buying any securities.

Our common stock is traded on The Nasdaq Global Market under the symbol MAPP.

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

The date of this prospectus is April 16, 2009.

Table of Contents

TABLE OF CONTENTS

<u>About this Prospectus</u>	Page ii
<u>Forward Looking Statements</u>	ii
<u>Where You Can Find More Information</u>	ii
<u>MAP Pharmaceuticals, Inc.</u>	1
<u>Risk Factors</u>	1
<u>Use of Proceeds</u>	1
<u>Ratio of Earnings to Fixed Charges</u>	2
<u>Description of Debt Securities</u>	3
<u>Description of Capital Stock</u>	9
<u>Description of Warrants</u>	14
<u>Plan of Distribution</u>	16
<u>Experts</u>	16
<u>Validity of the Securities</u>	16

You should rely only on the information contained or incorporated by reference in this prospectus and in any applicable supplement to this prospectus. We have not authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus and the accompanying prospectus supplement and any free writing prospectus prepared by or on behalf of us is accurate only as of the date on their respective covers. Our business, financial condition, results of operations and prospects may have changed since that date.

Unless the context indicates otherwise, references in this prospectus to MAP Pharmaceuticals, we, us, our and the company refer to MAP Pharmaceuticals, Inc., its predecessors and its consolidated subsidiaries.

Table of Contents

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, or SEC, using a shelf registration process. Under this process, we may sell debt securities; common stock; preferred stock and warrants. This prospectus provides you with only a general description of the securities that we may offer. Each time we sell securities, we will provide a supplement to this prospectus that contains specific information about the terms of the securities. The prospectus supplement may also add, update or change information contained in this prospectus. Before purchasing any securities, you should carefully read both this prospectus and the accompanying prospectus supplement and any free writing prospectus prepared by or on behalf of us, together with the additional information described under the heading **Where You Can Find More Information**.

FORWARD LOOKING STATEMENTS

All statements included or incorporated by reference into this prospectus and any accompanying prospectus supplement, other than statements of historical facts, that address activities, events or developments that we intend, expect, project, believe or anticipate will or may occur in the future are forward looking statements. This prospectus and any accompanying prospectus contain forward looking statements that are based on current expectations, estimates, forecasts and projections about us, our future performance, our business or others on our behalf, our beliefs and our management's assumptions. In addition, we, or others on our behalf, may make forward looking statements in press releases or written statements, or in our communications and discussions with investors and analysts in the normal course of business through meetings, webcasts, phone calls and conference calls. Words such as expect, anticipate, outlook, could, will, target, project, intend, plan, believe, should, may, assume, or continue, and variations of such words and similar expressions are intended to identify such forward looking statements. These statements are not guarantees of future performance and involve certain risks, uncertainties and assumptions that are difficult to predict. We have based our forward looking statements on our management's beliefs and assumptions based on information available to our management at the time the statements are made. We caution you that actual outcomes and results may differ materially from what is expressed, implied or forecast by our forward looking statements. Reference is made in particular to forward looking statements regarding product sales, regulatory activities, clinical trial results, reimbursement, expenses, earnings per share, liquidity and capital resources, and trends. Except as required under the federal securities laws and the rules and regulations of the SEC, we do not have any intention or obligation to update publicly any forward looking statements after the distribution of this prospectus and any accompanying prospectus supplement, whether as a result of new information, future events, changes in assumptions or otherwise.

You are cautioned not to rely unduly on any forward looking statements. These risks and uncertainties are discussed in more detail under **Risk Factors**, **Business** and **Management's Discussion and Analysis of Financial Condition and Results of Operations** in our reports and other documents on file with the SEC. You may obtain copies of these documents as described under **Where You Can Find More Information** below.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC's website at www.sec.gov. You may also read and copy any document we file with the SEC at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the public reference rooms. We maintain a website at www.mappharma.com. The information contained on our website is not incorporated by reference in this prospectus and any accompanying prospectus supplement and you should not consider it a part of this prospectus and any accompanying prospectus supplement.

Table of Contents

The SEC allows us to incorporate by reference the information we file with them which means that we can disclose important information to you by referring you to those documents instead of having to repeat the information in this prospectus. The information incorporated by reference is considered to be part of this prospectus, and later information that we file with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below and any future information filed (rather than furnished) with the SEC under Sections 13(a), 13(c), 14, or 15(d) of the Exchange Act between the date of this prospectus and the termination of the offering and also between the date of the initial registration statement and prior to effectiveness of the registration statement, provided, however, that we are not incorporating any information furnished under any of Item 2.02 or Item 7.01 of any current report on Form 8-K:

Annual Report on Form 10-K for the fiscal year ended December 31, 2008, as amended by Form 10-K/A filed on April 9, 2009; and

Current Reports on Form 8-K filed on January 12, 2009, January 26, 2009, February 3, 2009, February 13, 2009, February 23, 2009 (with respect to Item 8.01) and March 23, 2009.

You may request a copy of any documents incorporated by reference in this prospectus and any accompanying prospectus supplement, at no cost, by writing or calling us at the following address and telephone number:

MAP Pharmaceuticals, Inc.

Attn: Corporate Secretary

2400 Bayshore Parkway, Suite 200

Mountain View, CA 94043

(650) 386-3100

Exhibits to the filings will not be sent, however, unless those exhibits have specifically been incorporated by reference in this prospectus and any accompanying prospectus supplement.

Table of Contents

MAP PHARMACEUTICALS, INC.

MAP Pharmaceuticals uses proprietary inhalation technologies to enhance the therapeutic benefits and commercial attractiveness of proven drugs while minimizing risk by capitalizing on their known safety, efficacy and commercialization history. We have several product candidates in development that address large market opportunities, including our two most advanced product candidates, Unit Dose Budesonide (UDB) for asthma in children and MAP0004 for migraine.

Our technologies enable us to develop proprietary drug candidates for delivery via the respiratory tract to more effectively treat both local respiratory and systemically treatable diseases. We create inhalable drug particles with the specific physical and chemical characteristics to facilitate efficient pulmonary delivery. We believe this will result in medicines that are more appropriate for the intended indication. Our product candidates are designed to offer several benefits to patients compared to alternative therapies, including: quicker symptom relief, longer-lasting therapeutic benefit at lower doses, shorter administration time, enhanced safety profile and convenient, non-invasive delivery.

Our principal executive offices are located at 2400 Bayshore Parkway, Suite 200, Mountain View, CA 94043, and our telephone number at that address is (650) 386-3100. Our website can be found at www.mappharma.com. The information contained in, or that can be accessed through, our website is not part of this prospectus or any accompanying prospectus supplement. Unless the context indicates otherwise, references in this prospectus to MAP Pharmaceuticals, we, us, our and the company refer to MAP Pharmaceuticals, Inc., its predecessors and its consolidated subsidiaries.

RISK FACTORS

Investment in any securities offered pursuant to this prospectus involves risks. You should carefully consider the risk factors incorporated by reference to our most recent Annual Report on Form 10-K, any subsequent Quarterly Reports on Form 10-Q or Current Reports on Form 8-K that we have filed or will file, and all other information contained or incorporated by reference into this prospectus, as updated by our subsequent filings under the Exchange Act, and the risk factors and other information contained in the applicable prospectus supplement before acquiring any of such securities. The occurrence of any of these risks might cause you to lose all or part of your investment in the offered securities. Please also refer to the section above entitled Forward Looking Statements.

USE OF PROCEEDS

We intend to use the net proceeds from the sale of the securities offered by us under this prospectus for general corporate purposes, including repaying, redeeming or repurchasing debt, acquisitions, share repurchases, capital expenditures and working capital. When a particular series of securities is offered, the prospectus supplement relating to that series will set forth our intended use for the net proceeds we receive from the sale of the securities. Pending the application of the net proceeds, we may invest the proceeds in short-term, interest-bearing instruments or other investment-grade securities.

Table of Contents

RATIO OF EARNINGS TO FIXED CHARGES

The following summary is qualified by the more detailed information appearing in the computation table found in Exhibit 12.1 to the registration statement of which this prospectus is part and the historical financial statements, including the notes to those financial statements, incorporated by reference in this prospectus. The following table sets forth our ratio of earnings to fixed charges for each of the periods indicated (in thousands):

	Year Ended December 31,				
	2008	2007	2006	2005	2004
Ratio of earnings to fixed charges (1)					

- (1) For the purpose of computing the ratio of earnings to fixed charges, earnings consist of net loss plus fixed charges. Fixed charges consist of interest expense, amortization of debt expense and discount or premium related to indebtedness, whether expensed or capitalized. Earnings were insufficient to cover fixed charges for these periods. We have not included a ratio of earnings to combined fixed charges and preferred stock dividends because we do not have any preferred stock outstanding as of the date of this prospectus. The amount of the coverage deficiency was \$70,872, \$38,717, \$25,574, \$16,249 and \$8,831 for the years ended December 31, 2008, 2007, 2006, 2005 and 2004, respectively.

Table of Contents

DESCRIPTION OF DEBT SECURITIES

The debt securities covered by this prospectus will be issued under one or more separate indentures to be entered into between us and a trustee to be identified in the applicable prospectus supplement. This prospectus, together with its prospectus supplement, will describe all the material terms of a particular series of debt securities.

The following is a summary of the most important provisions and definitions of the indenture. For additional information, you should look at the indenture that is filed as an exhibit to the registration statement which includes the prospectus.

General

Debt securities may be issued in separate series without limitation as to aggregate principal amount. We may specify a maximum aggregate principal amount for the debt securities of any series.

We are not limited as to the amount of debt securities we may issue under the indenture, though such amount shall be limited by the aggregate principal amount of securities that we may sell under this prospectus. The prospectus supplement will set forth:

the offering price;

the title;

any limit on the aggregate principal amount;

the person who shall be entitled to receive interest, if other than the record holder on the record date;

the date the principal will be payable;

the interest rate, if any, the date interest will accrue, the interest payment dates and the regular record dates;

the place where payments may be made;

any mandatory or optional redemption provisions;

if applicable, the method for determining how the principal, premium, if any, or interest will be calculated by reference to an index or formula;

if other than U.S. currency, the currency or currency units in which principal, premium, if any, or interest will be payable and whether we or the holder may elect payment to be made in a different currency;

the portion of the principal amount that will be payable upon acceleration of stated maturity, if other than the entire principal amount;

if the principal amount payable at stated maturity will not be determinable as of any date prior to stated maturity, the amount which will be deemed to be the principal amount;

any defeasance provisions if different from those described below under Satisfaction and Discharge; Defeasance;

any conversion or exchange provisions;

any obligation to redeem or purchase the debt securities pursuant to a sinking fund;

whether the debt securities will be issuable in the form of a global security;

any subordination provisions, if different from those described below under Subordinated Debt Securities;

any deletions of, or changes or additions to, the events of default or covenants; and

any other specific terms of such debt securities.

Table of Contents

Unless otherwise specified in the prospectus supplement:

the debt securities will be registered debt securities; and

registered debt securities denominated in U.S. dollars will be issued in denominations of \$1,000 and any integral multiple thereof. Debt securities may be sold at a substantial discount below their stated principal amount, bearing no interest or interest at a rate which at the time of issuance is below market rates.

Exchange and Transfer

Debt securities may be transferred or exchanged at the office of the security registrar or at the office of any transfer agent designated by us.

We will not impose a service charge for any transfer or exchange, but we may require holders to pay any tax or other governmental charges associated with any transfer or exchange.

In the event of any potential redemption of debt securities of any series, we will not be required to:

issue, register the transfer of or exchange any debt security of that series during a period beginning at the opening of business 15 days before the day of mailing of a notice of redemption and ending at the close of business on the day of the mailing; or

register the transfer of or exchange any debt security of that series selected for redemption, in whole or in part, except the unredeemed portion being redeemed in part.

We may initially appoint the trustee as the security registrar. Any transfer agent, in addition to the security registrar initially designated by us, will be named in the prospectus supplement. We may designate additional transfer agents or change transfer agents or change the office of the transfer agent. However, we will be required to maintain a transfer agent in each place of payment for the debt securities of each series.

Global Securities

The debt securities of any series may be represented, in whole or in part, by one or more global securities. Each global security will:

be registered in the name of a depositary that we will identify in a prospectus supplement;

be deposited with the depositary or nominee or custodian; and

bear any required legends.

No global security may be exchanged in whole or in part for debt securities registered in the name of any person other than the depositary or any nominee unless:

the depositary has notified us that it is unwilling or unable to continue as depositary or has ceased to be qualified to act as depositary;

Edgar Filing: MAP Pharmaceuticals, Inc. - Form 424B5

an event of default is continuing; or

any other circumstances described in a prospectus supplement occur.

As long as the depository, or its nominee, is the registered owner of a global security, the depository or nominee will be considered the sole owner and holder of the debt securities represented by the global security for all purposes under the indenture. Except in the above limited circumstances, owners of beneficial interests in a global security:

will not be entitled to have the debt securities registered in their names;

will not be entitled to physical delivery of certificated debt securities; and

will not be considered to be holders of those debt securities under the indentures.

Table of Contents

Payments on a global security will be made to the depository or its nominee as the holder of the global security. Some jurisdictions have laws that require that certain purchasers of securities take physical delivery of such securities in definitive form. These laws may impair the ability to transfer beneficial interests in a global security.

Institutions that have accounts with the depository or its nominee are referred to as participants. Ownership of beneficial interests in a global security will be limited to participants and to persons that may hold beneficial interests through participants. The depository will credit, on its book-entry registration and transfer system, the respective principal amounts of debt securities represented by the global security to the accounts of its participants.

Ownership of beneficial interests in a global security will be shown on and effected through records maintained by the depository, with respect to participants' interests, or any participant, with respect to interests of persons held by participants on their behalf. Payments, transfers and exchanges relating to beneficial interests in a global security will be subject to policies and procedures of the depository. The depository policies and procedures may change from time to time. Neither we nor the trustee will have any responsibility or liability for the depository's or any participant's records with respect to beneficial interests in a global security.

Payment and Paying Agent

The provisions of this paragraph will apply to the debt securities unless otherwise indicated in the prospectus supplement. Payment of interest on a debt security on any interest payment date will be made to the person in whose name the debt security is registered at the close of business on the regular record date. Payment on debt securities of a particular series will be payable at the office of a paying agent or paying agents designated by us. However, at our option, we may pay interest by mailing a check to the record holder.

We may also name any other paying agents in the prospectus supplement. We may designate additional paying agents, change paying agents or change the office of any paying agent. However, we will be required to maintain a paying agent in each place of payment for the debt securities of a particular series.

All moneys paid by us to a paying agent for payment on any debt security which remain unclaimed at the end of two years after such payment was due will be repaid to us. Thereafter, the holder may look only to us for such payment.

Consolidation, Merger and Sale of Assets

Except as otherwise set forth in the prospectus supplement, we may not consolidate with or merge into any other person, in a transaction in which we are not the surviving corporation, or convey, transfer or lease our properties and assets substantially as an entirety to, any person, unless:

we are the surviving corporation or the successor assumes our obligations on the debt securities and under the indenture;

immediately after giving effect to the transaction, no default or event of default shall have occurred and be continuing; and

certain other conditions are met.

Events of Default

Unless we inform you otherwise in the prospectus supplement, the indenture will define an event of default with respect to any series of debt securities as one or more of the following events:

- (1) failure to pay principal of or any premium on any debt security of that series when due;
- (2) failure to pay any interest on any debt security of that series within 30 days following the due date;

Edgar Filing: MAP Pharmaceuticals, Inc. - Form 424B5

(3) default in the performance or breach of any covenant or warranty in the indenture continued for 90 days after being given the notice required in the indenture;

(4) our bankruptcy, insolvency or reorganization; and

(5) any other event of default specified in the prospectus supplement.

An event of default of one series of debt securities is not necessarily an event of default for any other series of debt securities.

Table of Contents

If an event of default, other than an event of default described in clause (4) above, shall occur and be continuing, either the trustee or the holders of at least 25% in aggregate principal amount of the outstanding securities of that series may declare the principal amount of the debt securities of that series to be due and payable immediately.

If an event of default described in clause (4) above shall occur, the principal amount of all the debt securities of that series will automatically become immediately due and payable. Any payment by us on the subordinated debt securities following any such acceleration will be subject to the subordination provisions described below under Subordinated Debt Securities.

After acceleration the holders of a majority in aggregate principal amount of the outstanding securities of that series may, under certain circumstances, rescind and annul such acceleration if all events of default, other than the non-payment of accelerated principal, or other specified amount, have been cured or waived.

Other than the duty to act with the required care during an event of default, the trustee will not be obligated to exercise any of its rights or powers at the request of the holders unless the holders shall have offered to the trustee reasonable indemnity. Generally, the holders of a majority in aggregate principal amount of the outstanding debt securities of any series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee or exercising any trust or power conferred on the trustee.

A holder will not have any right to institute any proceeding under the indentures, or to appoint a receiver or a trustee, or to any other remedy under the indentures, unless:

- (1) the holder has previously given to the trustee written notice of a continuing event of default with respect to the debt securities of that series;
- (2) the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series have made a written request and have offered reasonable indemnity to the trustee to institute the proceeding; and
- (3) the trustee has failed to institute the proceeding and has not received direction inconsistent with the original request from the holders of a majority in aggregate principal amount of the outstanding debt securities of that series within 60 days after the original request.

Holders may, however, sue to enforce the payment of principal, premium or interest on any debt security on or after the due date or to enforce the right, if any, to convert any debt security without following the procedures listed in (1) through (3) above.

We will furnish the trustee an annual statement by our officers as to whether or not we are in default in the performance of the indenture and, if so, specifying all known defaults.

Modification and Waiver

Except as provided in the next two succeeding paragraphs, we and the trustee may make modifications and amendments to the indentures (including, without limitation, through consents obtained in connection with a purchase of, or tender offer or exchange offer for, outstanding securities) and may waive any existing default or event of default (including, without limitation, through consents obtained in connection with a purchase of, or tender offer for, outstanding securities) with the consent of the holders of a majority in aggregate principal amount of the outstanding securities of each series affected by the modification or amendment.

However, neither we nor the trustee may make any modification or amendment without the consent of the holder of each outstanding security of that series affected by the modification or amendment if such modification or amendment would:

change the stated maturity of any debt security;

reduce the principal of, premium, if any, on or interest on any debt security;

reduce the principal of an original issue discount security or any other debt security payable on acceleration of maturity;

reduce the rate of or extend the time for payment of interest on any debt security;

change the currency in which any debt security is payable;

impair the right to enforce any payment after the stated maturity or redemption date;

Table of Contents

waive any default or event of default in payment of the principal of, premium on or interest on any debt security;

waive a redemption payment or modify any of the redemption provisions of any debt security;

adversely affect the right, if any, to convert any debt security; or

change the provisions in the indenture that relate to modifying or amending the indenture.

Notwithstanding the preceding, without the consent of any holder of outstanding securities, we and the trustee may amend or supplement the indentures:

to cure any ambiguity, defect or inconsistency;

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

to provide for the assumption of our obligations to holders of any debt security in the case of a merger or consolidation or sale of all or substantially all of our assets;

to make any change that would provide any additional rights or benefits to the holders of securities or that does not adversely affect the legal rights under the indenture of any such holder;

to comply with requirements of the Commission in order to effect or maintain the qualification of an indenture under the Trust Indenture Act;

to conform the text of the indentures to any provision of the Description of Debt Securities to the extent that such provision in the Description of Debt Securities was intended to be a verbatim recitation of a provision of the indentures;

to provide for the issuance of additional securities in accordance with the limitations set forth in the indenture as of the date of the indenture;

to allow any guarantor to execute a supplemental indenture with respect to debt securities and to release guarantors in accordance with the terms of the indenture; or

to add additional obligors under the indenture and the securities.

The consent of holders is not necessary under the indentures to approve the particular form of any proposed amendment. It is sufficient if such consent approves the substance of the proposed amendment.

Satisfaction and Discharge; Defeasance

Edgar Filing: MAP Pharmaceuticals, Inc. - Form 424B5

We may be discharged from our obligations on the debt securities of any series that have matured or will mature or be redeemed within one year if we irrevocably deposit with the trustee enough cash to pay all principal, interest and any premium due on the stated maturity date or redemption date of the debt securities.

Each indenture contains a provision that permits us to elect:

to be discharged from all of our obligations, subject to limited exceptions, with respect to any series of debt securities then outstanding; and/or

to be released from our obligations under the following covenants and from the consequences of an event of default resulting from a breach of all covenants other than the obligation to pay principal and interest.

To make either of the above elections, we must deposit in trust with the trustee enough money to pay in full the principal, interest and any premium on the debt securities. This deposit may be made in cash and/or U.S. government obligations. As a condition to either of the above elections, we must deliver to the trustee an opinion of counsel that the holders of the debt securities will not recognize income, gain or loss for Federal income tax purposes as a result of the action.

If any of the above events occurs, the holders of debt securities of the series will not be entitled to the benefits of the indenture, except for the rights of holders to receive payments on the debt securities, the registration of transfer and exchange of debt securities and replacement of lost, stolen or mutilated debt securities.

Table of Contents

Notices

Notices to holders will be given by mail to the addresses of the holders in the security register.

Governing Law

The indentures and the debt securities will be governed by, and construed under, the laws of the State of New York.

Regarding the Trustee

The indenture limits the right of the trustee, should it become a creditor of us, to obtain payment of claims or secure its claims.

The trustee is permitted to engage in certain other transactions. However, if the trustee acquires any conflicting interest, and there is a default under the debt securities of any series for which they are trustee, the trustee must eliminate the conflict or resign.

Subordinated Debt Securities

Payment on subordinated debt securities will, to the extent provided in the indenture, be subordinated in right of payment to the prior payment in full of all of our senior indebtedness (except that holders of notes may receive and retain subordinated debt securities and payments made from either of the trusts described under Satisfaction and Discharge; Defeasance). The subordinated debt securities also are effectively subordinated to all debt and other liabilities, including trade payables and lease obligations, if any, of our subsidiaries, if any.

Upon any distribution of our assets upon any dissolution, winding up, liquidation or reorganization, the payment of the principal of and interest on subordinated debt securities will be subordinated in right of payment to the prior payment in full of all senior indebtedness in cash or other payment satisfactory to the holders of senior indebtedness. In the event of any acceleration of subordinated debt securities because of an event of default, the holders of any senior indebtedness would be entitled to payment in full in cash or other payment satisfactory to such holders of all senior indebtedness obligations before the holders of subordinated debt securities are entitled to receive any payment or distribution (except that holders of notes may receive and retain subordinated debt securities and payments made from either of the trusts described under Satisfaction and Discharge; Defeasance). The indenture requires us or the trustee to promptly notify holders of designated senior indebtedness if payment of subordinated debt securities is accelerated because of an event of default.

We may not ma;">

Fair value measurements

Level 1

Level 2

Level 3

Assets:

Derivative instruments

\$
7.2

\$
—

\$
7.2

\$
—

Liabilities:

Derivative instruments
\$
2.5

\$
—

\$
2.5

\$
—

Derivative instruments include forward foreign currency contracts and instruments related to non-functional currency balance sheet exposures. The fair value of the derivative instruments are determined based on a pricing model that uses spot rates and forward prices from actively quoted currency markets that are readily accessible and observable.

The carrying values of cash and cash equivalents, accounts receivable, and accounts payable are a reasonable estimate of their fair value due to the short-term nature of these instruments. These methodologies used by the Company to determine the fair value of its financial assets and liabilities at March 31, 2018 are the same as those used at December 31, 2017. There have been no transfers between levels of the fair value hierarchy.

Note 9. Pensions and Postretirement Benefits Other than Pensions

The Company sponsors several U.S. defined benefit and defined contribution plans covering substantially all of the Company's U.S. employees. Additionally, the Company has many non-U.S. defined benefit and defined contribution plans covering eligible non-U.S. employees. Postretirement benefits other than pensions (OPEB) provide healthcare benefits, and in some instances, life insurance benefits for certain eligible employees.

Pension Plans

The noncontributory defined benefit pension plans covering non-collectively bargained U.S. employees provide benefits on a final average pay formula while plans for most collectively bargained U.S. employees provide benefits on a flat dollar benefit formula or a percentage of pay formula. The non-U.S. pension plans generally provide benefits based on earnings and years of service. The Company also maintains additional other supplemental plans for officers and other key or highly compensated employees.

The components of the Company's net periodic pension benefit cost for the three months ended March 31 were as follows:

In millions	Three months ended	
	2018	2017
Service cost	\$17.9	\$17.8
Interest cost	27.0	27.0
Expected return on plan assets	(36.9)	(35.2)
Net amortization of:		
Prior service costs	1.1	1.0
Net actuarial losses	12.5	13.6
Net periodic pension benefit cost	\$21.6	\$24.2
Net curtailment and settlement (gains) losses	—	2.3

Edgar Filing: MAP Pharmaceuticals, Inc. - Form 424B5

Net periodic pension benefit cost after net curtailment and settlement (gains) losses	\$21.6	\$26.5
Amounts recorded in continuing operations:		
Operating income	\$17.6	\$17.1
Other income/(expense), net	1.9	7.0
Amounts recorded in discontinued operations	2.1	2.4
Total	\$21.6	\$26.5

During the three months ended March 31, 2017, the Company recognized a curtailment loss associated with certain defined benefit plan freezes that is effective on January 1, 2022.

10

The Company made contributions to its defined benefit pension plans of \$10.9 million and \$5.6 million during the three months ended March 31, 2018 and 2017, respectively. The Company currently projects that it will contribute approximately \$80 million to its plans worldwide in 2018.

Postretirement Benefits Other Than Pensions

The Company sponsors several postretirement plans that provide for healthcare benefits, and in some instances, life insurance benefits that cover certain eligible employees. These plans are unfunded and have no plan assets, but are instead funded by the Company on a pay-as-you-go basis in the form of direct benefit payments. Generally, postretirement health benefits are contributory with contributions adjusted annually. Life insurance plans for retirees are primarily noncontributory.

The components of net periodic postretirement benefit cost for the three months ended March 31 were as follows:

In millions	Three months ended	
	2018	2017
Service cost	\$0.7	\$0.8
Interest cost	3.8	4.3
Net amortization of:		
Prior service gains	(1.0)	(2.2)
Net actuarial losses	—	—
Net periodic postretirement benefit cost	\$3.5	\$2.9
Amounts recorded in continuing operations:		
Operating income	\$0.7	\$0.8
Other income/(expense), net	2.0	1.2
Amounts recorded in discontinued operations	0.8	0.9
Total	\$3.5	\$2.9

Note 10. Equity

The authorized share capital of Ingersoll-Rand plc is 1,185,040,000 shares, consisting of (1) 1,175,000,000 ordinary shares, par value \$1.00 per share, (2) 40,000 ordinary shares, par value EUR 1.00 and (3) 10,000,000 preference shares, par value \$0.001 per share. There were no Euro-denominated ordinary shares or preference shares outstanding at March 31, 2018 or December 31, 2017.

Changes in ordinary shares and treasury shares for the three months ended March 31, 2018 are as follows:

In millions	Ordinary shares issued	Ordinary shares held in treasury
December 31, 2017	274.0	24.5
Shares issued under incentive plans, net	1.3	—
Repurchase of ordinary shares	(2.8)	—
March 31, 2018	272.5	24.5

Share repurchases are made from time to time in accordance with the Company's capital allocation strategy, subject to market conditions and regulatory requirements. In April 2017, the Company completed a \$1.5 billion share repurchase program that began in April 2014. Shares repurchased prior to October 2014 were canceled upon repurchase and accounted for as a reduction of Ordinary shares and Capital in excess of par value, or Retained earnings to the extent Capital in excess of par value was exhausted. Beginning in October 2014, repurchased shares were held in treasury, recognized at cost and presented separately on the balance sheet as a reduction to Equity. In February 2017, the Company's Board of Directors authorized the repurchase of up to \$1.5 billion of its ordinary shares upon completion of the prior authorized program. Repurchases under this program, which began in May 2017, totaled approximately \$600 million at December 31, 2017 and are held in treasury. During the three months ended March 31, 2018, the Company repurchased and canceled approximately \$250 million of its ordinary shares.

The components of Equity for the three months ended March 31, 2018 were as follows:

In millions	Shareholders' equity	Noncontrolling interests	Total equity
Balance at December 31, 2017	\$ 7,140.3	\$ 66.6	\$7,206.9
Net earnings	120.4	3.7	124.1
Currency translation	143.9	0.4	144.3
Derivatives qualifying as cash flow hedges, net of tax	2.8	—	2.8
Pension and OPEB adjustments, net of tax	5.4	—	5.4
Total comprehensive income (loss)	272.5	4.1	276.6
Share-based compensation	30.0	—	30.0
Adoption of ASC 606	2.4	—	2.4
Adoption of ASU 2016-16	(9.1	) —	(9.1)
Dividends declared to noncontrolling interests	—	(11.0	) (11.0)
Dividends declared to ordinary shareholders	(112.0	) —	(112.0)
Shares issued under incentive plans, net of tax benefit	6.6	—	6.6
Repurchase of ordinary shares	(250.0	) —	(250.0)
Balance at March 31, 2018	\$ 7,080.7	\$ 59.7	\$7,140.4

The components of Equity for the three months ended March 31, 2017 were as follows:

In millions	Shareholders' equity	Noncontrolling interests	Total equity
Balance at December 31, 2016	\$ 6,643.8	\$ 74.5	\$6,718.3
Net earnings	117.1	4.0	121.1
Currency translation	112.4	(1.5	) 110.9
Derivatives qualifying as cash flow hedges, net of tax	1.6	—	1.6
Pension and OPEB adjustments, net of tax	6.6	—	6.6
Total comprehensive income (loss)	237.7	2.5	240.2
Share-based compensation	23.3	—	23.3
Adoption of ASU 2016-09 ⁽¹⁾	15.1	—	15.1
Dividends declared to noncontrolling interests	—	(6.9	) (6.9)
Dividends declared to ordinary shareholders	(103.0	) —	(103.0)
Shares issued under incentive plans, net of tax benefit	16.8	—	16.8
Repurchase of ordinary shares	(250.1	) —	(250.1)
Other	0.2	—	0.2
Balance at March 31, 2017	\$ 6,583.8	\$ 70.1	\$6,653.9

(1) The Company adopted ASU No. 2016-09, "Compensation-Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting" (ASU 2016-09) on January 1, 2017.

Accumulated Other Comprehensive Income (Loss)

The changes in Accumulated other comprehensive income (loss) for the three months ended March 31, 2018 are as follows:

In millions	Derivative Instruments	Pension and OPEB	Foreign Currency Translation	Total
Balance at December 31, 2017	\$ 4.7	\$(494.3)	\$ (289.2)	\$(778.8)
Other comprehensive income (loss) before reclassifications	2.1	(4.6)	143.9	141.4
Amounts reclassified from AOCI	1.0	12.6	—	13.6
Provision for income taxes	(0.3)	(2.6)	—	(2.9)
Net current period other comprehensive income (loss)	\$ 2.8	\$5.4	\$ 143.9	\$152.1
Balance at March 31, 2018	\$ 7.5	\$(488.9)	\$ (145.3)	\$(626.7)

The changes in Accumulated other comprehensive income (loss) for the three months ended March 31, 2017 are as follows:

In millions	Derivative Instruments	Pension and OPEB	Foreign Currency Translation	Total
Balance at December 31, 2016	\$ 2.9	\$(554.4)	\$ (739.0)	\$(1,290.5)
Other comprehensive income (loss) before reclassifications	1.2	(0.8)	112.4	112.8
Amounts reclassified from AOCI	0.4	12.4	—	12.8
Provision for income taxes	—	(5.0)	—	(5.0)
Net current period other comprehensive income (loss)	\$ 1.6	\$6.6	\$ 112.4	\$120.6
Balance at March 31, 2017	\$ 4.5	\$(547.8)	\$ (626.6)	\$(1,169.9)

The reclassifications out of Accumulated other comprehensive income (loss) for the three months ended March 31 were as follows:

In millions	Three months ended	
	2018	2017
Derivative Instruments		
Reclassifications of deferred (gains) losses ⁽¹⁾	\$1.0	\$0.4
Provision for (benefit from) income taxes	0.2	(0.1)
Reclassifications, net of taxes	\$1.2	\$0.3
Pension and Postretirement benefits		
Amortization of service costs ⁽²⁾	\$0.1	\$(1.2)
Amortization of actuarial losses ⁽²⁾	12.5	13.6
Provision for (benefit from) income taxes	(2.6)	(5.0)
Reclassifications, net of taxes	\$10.0	\$7.4
Total reclassifications, net of taxes	\$11.2	\$7.7

(1) Reclassifications of interest rate swaps and locks are reflected within Interest expense; reclassifications of currency derivatives designated as hedges are reflected in Cost of goods sold.

(2) Reclassifications of the service cost component of pension and postretirement benefit costs are reflected within Operating income; the remaining components are included within Other income/(expense), net.

Note 11. Revenue

The Company recognizes revenue when control of a good or service promised in a contract (i.e., performance obligation) is transferred to a customer. Control is obtained when a customer has the ability to direct the use of and obtain substantially all of the remaining benefits from that good or service. A majority of the Company's revenues are recognized at a point-in-time as control is transferred at a distinct point in time per the terms of a contract. However, a portion of the Company's revenues are recognized over time as the customer simultaneously receives control as the Company performs work under a contract.

Performance Obligations

A performance obligation is a distinct good, service or a bundle of goods and services promised in a contract. The Company identifies performance obligations at the inception of a contract and allocates the transaction price to individual performance obligations to faithfully depict the Company's performance in transferring control of the promised goods or services to the customer.

The following are the primary performance obligations identified by the Company:

Equipment and parts. The Company principally generates revenue from the sale of equipment and parts to customers and recognizes revenue at a point in time when control transfers to the customer. Transfer of control is generally determined based on the shipping terms of the contract. However, certain transactions within the Industrial segment include contracts to design, deliver and build highly engineered or customized equipment which have no alternative use for the Company in the event the customer cancels the contract. In addition, the Company has the right to payment for performance completed to date. As a result, revenues related to these contracts are recognized over time with progress towards completion measured using an input method as the basis to recognize revenue and an estimated profit. To-date efforts for work performed corresponds with and faithfully depicts transfer of control to the customer.

Contracting and Installation. The Company enters into various construction-type contracts to design, deliver and build integrated solutions to meet customer specifications. These transactions, primarily included within the Climate segment, provide services that range from the development and installation new HVAC systems to the design and integration of critical building systems to optimize energy efficiency and overall performance. These contracts have a typical term of less than one year and are considered a single performance obligation as multiple combined goods and services promised in the contract represent a single output delivered to the customer. Revenues associated with contracting and installation contracts are recognized over time with progress towards completion measured using an input method as the basis to recognize revenue and an estimated profit. To-date efforts for work performed corresponds with and faithfully depicts transfer of control to the customer.

Services and Maintenance. The Company provides various levels of preventative and/or repair and maintenance type service agreements for its customers. The typical length of a contract is 12 months but can be as long as 36 months. Revenue associated with these performance obligations are primarily recognized over time on a straight-line basis over the life of the contract as the customer simultaneously receives and consumes the benefit provided by the Company. However, if historical evidence indicates that the cost of providing these services on a straight-line basis is not appropriate, revenue is recognized over the contract period in proportion to the costs expected to be incurred while performing the service. Certain repair services do not meet the definition of over time revenue recognition as the Company does not transfer control to the customer until the service is completed. As a result, revenue related to these services is recognized at a point in time.

Extended warranties. The Company enters into various warranty contracts with customers related to its products. A standard warranty generally warrants that a product is free from defects in workmanship and materials under normal use and conditions for a certain period of time. The Company's standard warranty is not considered a distinct performance obligation as it does not provide services to customers beyond assurance that the covered product is free of initial defects. An extended warranty provides a customer with additional time that the Company is liable for covered incidents associated with its products. Extended warranties are purchased separately and can last up to five years. As a result, they are considered separate performance obligations for the Company. Revenue associated with these performance obligations are primarily recognized over time on a straight-line basis over the life of the contract as the customer simultaneously receives and consumes the benefit provided by the Company. However, if historical evidence indicates that the cost of providing these services on a straight-line basis is not appropriate, revenue is recognized over the contract period in proportion to the costs expected to be incurred while performing the service.

Refer to Note 19, "Commitments and Contingencies," for more information related to product warranties. The transaction price allocated to performance obligations reflects the Company's expectations about the consideration it will be entitled to receive from a customer. The Company's contracts with customers, dealers and distributors include several forms of sales incentive programs (variable consideration) which are estimated and included in the transaction price. They include, but are not limited to, discounts (i.e. net 30 type), coupons, and rebates where the customer does not have to provide any additional requirements to receive the discount. The Company records an accrual (contra receivable) and a sales deduction for its best estimate determined using the expected value method. In addition, sales returns and customer disputes involving a question of quantity or price are also accounted for as variable consideration. All other incentives or incentive programs where the customer is required to reach a certain sales level, remain a customer for a certain period of time, provide a rebate form or is subject to additional

requirements are accounted for as a reduction of revenue and establishment of a liability for its best estimate determined using the expected value method. The Company considers historical data in determining its best estimates of variable consideration. These estimates are reviewed regularly for appropriateness, considering also whether the estimates should be constrained in order to avoid a significant reversal of revenue recognition in a future period. If updated information or actual amounts are different from previous estimates of variable consideration, the revisions are included in the results for the period in which they become known through a cumulative effect adjustment to revenue. In addition, the Company's contracts with customers generally do not include significant financing components or noncash consideration.

The Company enters into sales arrangements that contain multiple goods and services, such as equipment, installation and extended warranties. For these arrangements, each good or service is evaluated to determine whether it represents a distinct performance obligation. The total transaction price is then allocated to the distinct performance obligations based on their relative standalone selling price at the inception of the arrangement. If available, the Company utilizes observable prices for goods or services sold separately to similar customers in similar circumstances to determine its relative standalone selling price. Otherwise, list prices are used if they are determined to be representative of standalone selling prices. If neither of these items are available at contract inception, judgment may be required and the Company will estimate standalone selling price based on its best estimate. The Company recognizes revenue for delivered goods or services when the delivered good or service is distinct, control of the good or service has transferred to the customer, and only customary refund or return rights related to the goods or services exist. The Company excludes from revenues taxes it collects from a customer that are assessed by a government authority. Excluding noncurrent contract liabilities, unsatisfied (or partially unsatisfied) performance obligations as of the end of the reporting period are expected to be recognized as revenue within the next 12 months.

Disaggregated Revenue

A summary of Net revenues by destination for the three months ended March 31, 2018 is as follows:

In millions	2018
Climate	
United States	\$1,711.8
Non-U.S.	898.0
Total Climate	\$2,609.8
Industrial	
United States	\$414.6
Non-U.S.	360.1
Total Industrial	\$774.7

A summary of Net revenues by major type of good or service for the three months ended March 31, 2018 is as follows:

In millions	2018
Climate	
Equipment	\$1,771.5
Services and parts	838.3
Total Climate	\$2,609.8
Industrial	
Equipment	\$470.6
Services and parts	304.1
Total Industrial	\$774.7

Revenue from goods and services transferred to customers at a point in time accounted for approximately 85% of the Company's revenue for the three months ended March 31, 2018.

Contract Balances

The opening and closing balances of contract assets and contract liabilities arising from contracts with customers for the period ended March 31, 2018 and December 31, 2017 were as follows:

In millions	March 31, 2018	December 31, 2017
Contract assets	\$ 188.0	\$ 166.0
Contract liabilities	831.4	814.2

The timing of revenue recognition, billings and cash collections results in accounts receivable, contract assets, and customer advances and deposits (contract liabilities) on the Condensed Consolidated Balance Sheet. In general, the Company receives payments from customers based on a billing schedule established in its contracts. Contract assets relate to the conditional right to consideration for any completed performance under the contract when costs are incurred in excess of billings under the percentage-of-completion methodology. Accounts receivable are recorded when the right to consideration becomes unconditional. Contract liabilities relate to payments received in advance of performance under the contract or when the Company has a right to consideration that is unconditional before it transfers a good or service to the customer. Contract liabilities are recognized as revenue as (or when) the Company performs under the contract. During the three-month period ended March 31, 2018, changes in contract asset and liability balances were not materially impacted by any other factors.

Approximately 75% of the contract liability balance at the beginning of the period is expected to be recognized as revenue during 2018, of which 30% was recognized during the three months ended March 31, 2018. The remaining 25% of the contract liability balance at the beginning of the period is included within Other noncurrent liabilities and expected to be recognized as revenue during 2019 or thereafter.

ASC 606 adoption impact

On January 1, 2018, the Company adopted ASC 606 using the modified retrospective approach with a cumulative effect adjustment to increase Retained earnings by \$2.4 million. As a result, the Company applied ASC 606 only to contracts that were not completed as of January 1, 2018. Comparative information has not been restated and continues to be reported under the accounting standards in effect for those periods presented. The Company elected to reflect the aggregate effect of all contract modifications that occurred before the beginning of the earliest period presented in determining the transaction price, identifying the satisfied and unsatisfied performance obligations and allocating the transaction price to the satisfied and unsatisfied performance obligations for the modified contract at transition. The effects of this relief are immaterial.

The following table summarizes the impact of adopting ASC 606 on the Company's Condensed Consolidated Statements of Comprehensive Income:

In millions	Three months ended March 31, 2018		
	As Reported	Balances Without Adoption of ASC 606	Effect of Change Higher/(Lower)
Net revenues	\$3,384.5	\$3,381.2	\$ 3.3
Cost of goods sold	(2,420.2)	(2,417.0)	3.2
Selling and administrative expenses	(720.9)	(720.9)	—
Operating income	243.4	243.3	0.1
Interest expense	(72.9)	(72.9)	—
Other income/(expense), net	(4.0)	(4.0)	—
Earnings before income taxes	166.5	166.4	0.1
Provision for income taxes	(33.0)	(33.0)	—
Earnings from continuing operations	\$ 133.5	\$ 133.4	\$ 0.1

The following table summarizes the impact of adopting ASC 606 on the Company's Balance Sheet:

In millions	March 31, 2018		
	As Reported	Balances Without Adoption of ASC 606	Effect of Change Higher/(Lower)
Assets			
Accounts and notes receivable, net	\$2,516.0	\$2,517.5	\$ (1.5)
Inventories, net	1,778.8	1,782.0	(3.2)
Other current assets	601.6	591.9	9.7
Other noncurrent assets	807.1	807.1	—
Liabilities			
Accrued expenses and other current liabilities	\$1,685.0	\$1,680.1	\$ 4.9
Deferred and noncurrent income taxes	768.7	768.7	—
Other noncurrent liabilities	1,125.3	1,125.3	—
Equity			
Retained earnings	\$8,904.4	\$8,904.3	\$ 0.1

Under ASC 606, the majority of the Company's revenue continues to be recognized on a similar basis as previous accounting standards. However, certain highly engineered products sold to customers within the Industrial segment for which revenue was previously recognized at a point in time currently meet the criteria of a performance obligation satisfied over time. These contracts consist of equipment that is highly engineered or customized to meet the customer's requirements. As a result, the Company will have no alternative use for the equipment in the event the customer cancels the contract as well as the right to payment for performance completed to date. In general, this change results in accelerated recognition of revenue and increases in the balance of contract assets compared to the previous revenue recognition standard.

Note 12. Share-Based Compensation

The Company accounts for stock-based compensation plans in accordance with ASC 718, "Compensation - Stock Compensation" (ASC 718), which requires a fair-value based method for measuring the value of stock-based compensation. Fair value is measured once at the date of grant and is not adjusted for subsequent changes. The Company's share-based compensation plans include programs for stock options, restricted stock units (RSUs), performance share units (PSUs) and deferred compensation.

Compensation Expense

Share-based compensation expense is related to continuing operations and is included in Selling and administrative expenses. The expense recognized for three months ended March 31 was as follows:

In millions	Three months ended	
	2018	2017
Stock options	\$12.3	\$8.7
RSUs	13.3	10.3
Performance shares	4.4	4.4
Other	0.8	1.4
Pre-tax expense	30.8	24.8
Tax benefit	(7.5)	(9.5)
After-tax expense	\$23.3	\$15.3

Stock Options / RSUs

Eligible participants may receive (i) stock options, (ii) RSUs or (iii) a combination of both stock options and RSUs. The fair value of each of the Company's stock option and RSU awards is expensed on a straight-line basis over the required service period, which is generally the 3-year vesting period. However, for stock options and RSUs granted to retirement eligible employees, the Company recognizes an expense for the entire fair value at the grant date. Grants issued during the three months ended March 31 were as follows:

	2018		2017	
	Number granted	Weighted-average fair value per award	Number granted	Weighted-average fair value per award
Stock options	1,414,411	\$ 15.57	1,498,127	\$ 13.45
RSUs	279,901	\$ 89.97	310,868	\$ 79.76

The average fair value of the stock options granted is determined using the Black-Scholes option-pricing model. The following assumptions were used during the three months ended March 31:

	2018		2017	
Dividend yield	2.00 %	2.00 %	2.00 %	2.00 %
Volatility	21.65 %	22.46 %	21.65 %	22.46 %
Risk-free rate of return	2.48 %	1.80 %	2.48 %	1.80 %
Expected life in years	4.8	4.8	4.8	4.8

A description of the significant assumptions used to estimate the fair value of the stock option awards is as follows:

Volatility - The expected volatility is based on a weighted average of the Company's implied volatility and the most recent historical volatility of the Company's stock commensurate with the expected life.

Risk-free rate of return - The Company applies a yield curve of continuous risk-free rates based upon the published U.S. Treasury spot rates on the grant date.

Expected life - The expected life of the Company's stock option awards represents the weighted-average of the actual period since the grant date for all exercised or canceled options and an expected period for all outstanding options.

Dividend yield - The Company determines the dividend yield based upon the expected quarterly dividend payments as of the grant date and the current fair market value of the Company's stock.

Forfeiture Rate - The Company analyzes historical data of forfeited options to develop a reasonable expectation of the number of options to forfeit prior to vesting per year. This expected forfeiture rate is applied to the Company's ongoing compensation expense; however, all expense is adjusted to reflect actual vestings and forfeitures.

Performance Shares

The Company has a Performance Share Program (PSP) for key employees. The program provides awards in the form of PSUs based on performance against pre-established objectives. The annual target award level is expressed as a number of the Company's ordinary shares based on the fair market value of the Company's stock on the date of grant. All PSUs are settled in the form of ordinary shares. During the three months ended March 31, 2018, the Company granted PSUs with a maximum award level of approximately 0.4 million shares with a weighted-average fair value per award of \$106.09. PSUs granted during the three months ended March 31, 2017 approximated 0.4 million shares with a weighted-average fair value per award of \$93.15.

Beginning with the 2018 grant year, PSU awards are earned based 50% upon a performance condition, measured by relative Cash Flow Return on Invested Capital (CROIC) growth to the industrial group of companies in the S&P 500 Index over a 3-year performance period, and 50% upon a market condition, measured by the Company's relative total shareholder return (TSR) as compared to the TSR of the industrial group of companies in the S&P 500 Index over a 3-year performance period. The fair value of the market condition is estimated using a Monte Carlo Simulation approach in a risk-neutral framework based upon historical volatility, risk-free rates and correlation matrix. Awards granted prior to 2018 are earned based 50% upon a performance condition, measured by relative EPS growth to the industrial group of companies in the S&P 500 Index over a 3-year performance period, and 50% upon a market condition, measured by the Company's relative TSR as compared to the TSR of the industrial group of companies in the S&P 500 Index over the 3-year performance period.

Deferred Compensation

The Company allows key employees to defer a portion of their eligible compensation into a number of investment choices, including its ordinary share equivalents. Any amounts invested in ordinary share equivalents will be settled in ordinary shares of the Company at the time of distribution.

Note 13. Restructuring Activities

The Company incurs ongoing costs associated with restructuring initiatives intended to result in improved operating performance, profitability and working capital levels. Actions associated with these initiatives may include workforce reduction, improving manufacturing productivity, realignment of management structures and rationalizing certain assets. The following table details restructuring charges recorded during the three months ended March 31:

In millions	Three months ended	
	2018	2017
Climate	\$3.9	\$28.0
Industrial	35.7	4.7
Corporate and Other	4.8	—
Total	\$44.4	\$32.7

Cost of goods sold	\$36.5	\$30.3
Selling and administrative expenses	7.9	2.4
Total	\$44.4	\$32.7

The changes in the restructuring reserve for the three months ended March 31, 2018 were as follows:

In millions	Climate	Industrial	Corporate and Other	Total
December 31, 2017	\$ 7.4	\$ 6.1	\$ 2.5	\$16.0
Additions, net of reversals	3.9	35.7	4.8	44.4
Cash paid/other	(4.4)	(1.5)	(2.7)	(8.6)
March 31, 2018	\$ 6.9	\$ 40.3	\$ 4.6	\$51.8

Ongoing restructuring actions primarily include workforce reductions as well as the closure and consolidation of manufacturing facilities in an effort to improve the Company's cost structure. During the first quarter of 2018, the Company announced plans to close a Non-U.S. manufacturing facility within its Industrial segment and relocate production to other U.S. and Non-U.S. facilities. As of March 31, 2018, the Company had \$51.8 million accrued for costs associated with its ongoing restructuring actions, of which a majority is expected to be paid within one year. These actions primarily relate to workforce reduction benefits. In addition, the Company incurred \$0.3 million of non-qualified restructuring charges during three months ended March 31, 2018, which represent costs that are directly attributable to restructuring activities, but do not fall into the severance, exit or disposal category. These non-qualified restructuring charges were incurred to improve the Company's cost structure.

Note 14. Other Income/(Expense), Net

The components of Other income/(expense), net for the three months ended March 31 are as follows:

In millions	Three months ended	
	2018	2017
Interest income	\$3.6	\$3.1
Exchange gain (loss)	(7.3)	1.9
Other components of net periodic benefit cost	(3.9)	(8.2)
Other activity, net	3.6	(1.5)
Other income/(expense), net	\$(4.0)	\$(4.7)

Other income /(expense), net includes the results from activities other than normal business operations such as interest income and foreign currency gains and losses on transactions that are denominated in a currency other than an entity's functional currency. In addition, the Company includes the components of net periodic benefit cost for pension and post retirement obligations other than the service cost component. Other activity, net includes costs associated with Trane U.S. Inc. for the settlement and defense of asbestos-related claims, insurance settlements on asbestos-related matters and the revaluation of asbestos recoveries. Refer to Note 19, "Commitments and Contingencies," for more information regarding asbestos-related matters.

Note 15. Income Taxes

In December 2017, the U.S. enacted the Tax Cuts and Jobs Act (the "Act") which makes widespread changes to the Internal Revenue Code. The Act, among other things, reduced the U.S. federal corporate tax rate from 35% to 21%, requires companies to pay a transition tax on earnings of certain foreign subsidiaries that were previously not subject to U.S. tax and creates new income taxes on certain foreign sourced earnings.

The SEC issued Staff Accounting Bulletin No. 118 (SAB 118) which provides guidance on accounting for the tax effects of the Act and allows for adjustments to provisional amounts during a measurement period of up to one year. In accordance with SAB 118, the Company has made reasonable estimates related to (1) the remeasurement of U.S. deferred tax balances for the reduction in the tax rate, (2) the liability for the transition tax and (3) the taxes accrued relating to the change in permanent reinvestment assertion for unremitted earnings of certain foreign subsidiaries. As a result, the Company recognized a net provisional income tax benefit of \$21.0 million associated with these items in 2017.

The components of the provisional amounts recognized as part of the Act are as follows:

In millions	2018
Remeasurement of deferred tax balances	\$(300.6)
Transition tax	160.7
Change in permanent reinvestment assertion	118.9
Income tax benefit, net	\$(21.0)

The Company is continuing to evaluate how the provisions of the Act will be accounted for under ASC 740, "Income Taxes" (ASC 740). The analysis is provisional and is subject to change due to the additional time required to accurately calculate and review the complex tax law. The Company will continue to assess any regulatory guidance that is issued which could have an impact on the provisional estimates. The Company continues to gather information and is performing additional analysis on these estimates, including, but not limited to, the amount of earnings and profits subject to the transition tax, the calculation of foreign tax credits, the local tax treatment of future distributions of unremitted earnings and in regard to the remeasurement of U.S. deferred taxes, the filing of its 2017 federal and state income tax returns. Measurement period adjustments will be reported as a component of Provision for income taxes in the reporting period the amounts are determined. The final accounting will be completed no later than one year from the enactment of the Act. For the quarter ended March 31, 2018, the Company has not made any adjustments to the provisional amounts recorded as of December 31, 2017.

The Company accounts for its Provision for income taxes in accordance with ASC 740, which requires an estimate of the annual effective income tax rate for the full year to be applied to the respective interim period, taking into account year-to-date amounts and projected results for the full year. For the three months ended March 31, 2018 and March 31, 2017, the Company's effective income tax rate was 19.8% and 18.4%, respectively. The effective income tax rate for the three months ended March 31, 2018 was lower than the U.S. statutory rate of 21% primarily due to excess tax benefits from employee share-based payments and earnings in non-U.S. jurisdictions, which in aggregate have a lower effective tax rate partially offset by U.S. state and local income taxes. The effective tax rate for the three months ended March 31, 2017 was lower than the U.S. statutory rate of 35% primarily due to excess tax benefits from employee share-based payments and earnings in non-U.S. jurisdictions, which in aggregate have a lower effective tax rate.

Total unrecognized tax benefits as of March 31, 2018 and December 31, 2017 were \$124.4 million and \$120.5 million, respectively. Although management believes its tax positions and related provisions reflected in the Condensed Consolidated Financial Statements are fully supportable, it recognizes that these tax positions and related provisions may be challenged by various tax authorities. These tax positions and related provisions are reviewed on an

ongoing basis and are adjusted as additional facts and information become available, including progress on tax audits, changes in interpretations of tax laws, developments in case law and closing of statute of limitations. To the extent that the ultimate results differ from the original or adjusted estimates of the Company, the effect will be recorded in Provision for income taxes.

The Provision for income taxes involves a significant amount of management judgment regarding interpretation of relevant facts and laws in the jurisdictions in which the Company operates. Future changes in applicable laws, projected levels of taxable income and tax planning could change the effective tax rate and tax balances recorded by the Company. In addition, tax authorities periodically review income tax returns filed by the Company and can raise issues regarding its filing positions, timing and amount of income or deductions, and the allocation of income among the jurisdictions in which the Company operates. A significant period of time may elapse between the filing of an income tax return and the ultimate resolution of an issue raised by a revenue authority with respect to that return. In the normal course of business the Company is subject to examination by taxing authorities throughout the world, including such major jurisdictions as Brazil, Canada, China, France, Germany, Ireland, Italy, Mexico, Spain, the Netherlands, the United Kingdom and the United States. These examinations on their own, or any subsequent litigation related to the examinations, may result in additional taxes or penalties against the Company. If the ultimate result of these audits differ from original or adjusted estimates, they could have a material impact on the Company's tax provision. In general, the examination of the Company's material tax returns is complete or effectively settled for the years prior to 2008, with certain matters prior to 2008 being resolved through appeals and litigation and also unilateral procedures as provided for under double tax treaties.

Note 16. Acquisitions and Divestitures

Acquisitions

During the three months ended March 31, 2018, the Company acquired several businesses including ICS Group Holdings Limited. The business, reported within the Climate segment, specializes in the temporary rental of energy efficient chillers for commercial and industrial buildings across Europe. In addition, the Company continues to acquire independent dealers to expand its distribution networks. The aggregate cash paid, net of cash acquired, totaled \$201.6 million and was primarily for the acquisition of ICS Group Holdings Limited. Funding was through cash on hand. These acquisitions were recorded using the acquisition method of accounting in accordance with ASC 805 "Business Combinations." As a result, the aggregate price has been allocated to assets acquired and liabilities assumed based on the estimate of fair market value of such assets and liabilities at the date of acquisition.

The preliminary allocation of the aggregate purchase price is as follows:

In millions	Total
Other current assets	\$22.2
Intangibles	41.8
Goodwill	122.2
Other noncurrent assets	44.9
Accounts payable, accrued expenses and other liabilities	(29.5)
Total purchase price, net of cash acquired	\$201.6

Intangible assets associated with these acquisitions primarily relate to technology, trademarks and/or customer relationships and determined using an income approach methodology. Any excess of the purchase price is recognized as goodwill. For certain acquisitions, the Company is still in the process of allocating the purchase price and valuing the acquired assets and liabilities assumed.

On January 17, 2018, the Company entered into an agreement with Mitsubishi Electric Corporation (Mitsubishi) to establish a joint venture, pending regulatory review and approval, and customary closing conditions. The joint venture will focus on marketing, selling and supporting variable refrigerant flow (VRF) and ductless heating and air conditioning systems through Trane, American Standard and Mitsubishi channels in the U.S. and select Latin American countries. The Company and Mitsubishi will have equal ownership in the joint venture. It is expected to be operational in the second quarter of 2018.

Divestitures

The Company has retained costs from previously sold businesses that mainly include expenses related to postretirement benefits, product liability and legal costs (mostly asbestos related). The components of Discontinued operations, net of tax for the three months ended March 31 were as follows:

In millions	Three months ended	
	2018	2017
Pre-tax earnings (loss) from discontinued operations	\$(12.1)	\$(9.1)
Tax benefit (expense)	2.7	2.6
Discontinued operations, net of tax	\$(9.4)	\$(6.5)

Pre-tax earnings (loss) from discontinued operations includes costs associated with Ingersoll Rand Company for the settlement and defense of asbestos-related claims, insurance settlements on asbestos-related matters and the revaluation of its liability for potential future claims. Refer to Note 19, "Commitments and Contingencies," for more information related to asbestos.

Note 17. Earnings Per Share (EPS)

Basic EPS is calculated by dividing Net earnings attributable to Ingersoll-Rand plc by the weighted-average number of ordinary shares outstanding for the applicable period. Diluted EPS is calculated after adjusting the denominator of the basic EPS calculation for the effect of all potentially dilutive ordinary shares, which in the Company's case, includes shares issuable under share-based compensation plans. The following table summarizes the weighted-average number of ordinary shares outstanding for basic and diluted earnings per share calculations for three months ended March 31:

In millions	Three months ended	
	2018	2017
Weighted-average number of basic shares	250.4	259.4
Shares issuable under incentive stock plans	2.6	3.2
Weighted-average number of diluted shares	253.0	262.6
Anti-dilutive shares	1.7	1.6

Note 18. Business Segment Information

The accounting policies of the operating segments are the same as those described in the summary of significant accounting policies except that the operating segments' results are prepared on a management basis that is consistent with the manner in which the Company prepares financial information for internal review and decision making. The Company largely evaluates performance based on Segment operating income and Segment operating margins. Intercompany sales between segments are considered immaterial.

The Company's Climate segment delivers energy-efficient products and innovative energy services. It includes Trane® and American Standard® Heating & Air Conditioning which provide heating, ventilation and air conditioning (HVAC) systems, and commercial and residential building services, parts, support and controls; energy services and building automation through Trane Building Advantage and Nexia; and Thermo King® transport temperature control solutions.

The Company's Industrial segment delivers products and services that enhance energy efficiency, productivity and operations. It includes compressed air and gas systems and services, power tools, material handling systems, ARO® fluid management equipment, as well as Club Car® golf, utility and consumer low-speed vehicles.

Segment operating income is the measure of profit and loss that the Company's chief operating decision maker uses to evaluate the financial performance of the business and as the basis for performance reviews, compensation and resource allocation. For these reasons, the Company believes that Segment operating income represents the most relevant measure of segment profit and loss.

A summary of operations by reportable segment for the three months ended March 31 was as follows:

In millions	Three months ended	
	2018	2017
Net revenues		
Climate	\$2,609.8	\$2,324.1
Industrial	774.7	676.5
Total	\$3,384.5	\$3,000.6
Segment operating income		
Climate	\$260.4	\$217.3
Industrial	59.9	65.8
Unallocated corporate expense	(76.9)	(68.1)
Operating income	\$243.4	\$215.0

Note 19. Commitments and Contingencies

The Company is involved in various litigations, claims and administrative proceedings, including those related to environmental, asbestos, and product liability matters. In accordance with ASC 450, "Contingencies," the Company records accruals for loss contingencies when it is both probable that a liability will be incurred and the amount of the loss can be reasonably estimated. Amounts recorded for identified contingent liabilities are estimates, which are reviewed periodically and adjusted to reflect additional information when it becomes available. Subject to the uncertainties inherent in estimating future costs for contingent liabilities, except as expressly set forth in this note, management believes that any liability which may result from these legal matters would not have a material adverse effect on the financial condition, results of operations, liquidity or cash flows of the Company.

Environmental Matters

The Company continues to be dedicated to environmental and sustainability programs to minimize the use of natural resources, and reduce the utilization and generation of hazardous materials from our manufacturing processes and to remediate identified environmental concerns. As to the latter, the Company is currently engaged in site investigations and remediation activities to address environmental cleanup from past operations at current and former manufacturing facilities.

The Company is sometimes a party to environmental lawsuits and claims and has received notices of potential violations of environmental laws and regulations from the Environmental Protection Agency and similar state authorities. It has also been identified as a potentially responsible party (PRP) for cleanup costs associated with off-site waste disposal at federal Superfund and state remediation sites. For all such sites, there are other PRPs and, in most instances, the Company's involvement is minimal.

In estimating its liability, the Company has assumed it will not bear the entire cost of remediation of any site to the exclusion of other PRPs who may be jointly and severally liable. The ability of other PRPs to participate has been taken into account, based on the Company's understanding of the parties' financial condition and probable contributions on a per site basis. Additional lawsuits and claims involving environmental matters are likely to arise from time to time in the future.

Reserves for environmental matters are classified as Accrued expenses and other current liabilities or Other noncurrent liabilities based on their expected term. As of March 31, 2018 and December 31, 2017, the Company has recorded reserves for environmental matters of \$43.1 million and \$41.9 million, respectively. Of these amounts, \$37.2 million and \$36.8 million, respectively, relate to remediation of sites previously disposed of by the Company.

Asbestos-Related Matters

Certain wholly-owned subsidiaries and former companies of ours are named as defendants in asbestos-related lawsuits in state and federal courts. In virtually all of the suits, a large number of other companies have also been named as defendants. The vast majority of those claims have been filed against either Ingersoll-Rand Company or Trane U.S. Inc. (Trane) and generally allege injury caused by exposure to asbestos contained in certain historical products sold by Ingersoll-Rand Company or Trane, primarily pumps, boilers and railroad brake shoes. None of our existing or previously-owned businesses were a producer or manufacturer of asbestos.

The Company engages an outside expert to assist in calculating an estimate of the Company's total liability for pending and unasserted future asbestos-related claims and annually performs a detailed analysis with the assistance of an

outside expert to

23

update its estimated asbestos-related liability. The methodology used to project the Company's total liability for pending and unasserted potential future asbestos-related claims relied upon and included the following factors, among others:

- the outside expert's interpretation of a widely accepted forecast of the population likely to have been occupationally exposed to asbestos;
- epidemiological studies estimating the number of people likely to develop asbestos-related diseases such as mesothelioma and lung cancer;
- the Company's historical experience with the filing of non-malignancy claims and claims alleging other types of malignant diseases filed against the Company relative to the number of lung cancer claims filed against the Company;
- the outside expert's analysis of the number of people likely to file an asbestos-related personal injury claim against the Company based on such epidemiological and historical data and the Company's most recent three-year claims history;
- an analysis of the Company's pending cases, by type of disease claimed and by year filed;
- an analysis of the Company's most recent three-year history to determine the average settlement and resolution value of claims, by type of disease claimed;
- an adjustment for inflation in the future average settlement value of claims, at a 2.5% annual inflation rate, adjusted downward to 1.5% to take account of the declining value of claims resulting from the aging of the claimant population; and
- an analysis of the period over which the Company has and is likely to resolve asbestos-related claims against it in the future.

At March 31, 2018 and December 31, 2017, over 80 percent of the open claims against the Company are non-malignancy or unspecified disease claims, many of which have been placed on inactive or deferral dockets and the vast majority of which have little or no settlement value against the Company, particularly in light of recent changes in the legal and judicial treatment of such claims.

The Company's liability for asbestos-related matters and the asset for probable asbestos-related insurance recoveries were included in the following balance sheet accounts:

In millions	March 31, December 31,	
	2018	2017
Accrued expenses and other current liabilities	\$ 48.9	\$ 48.2
Other noncurrent liabilities	536.0	556.6
Total asbestos-related liabilities	\$ 584.9	\$ 604.8
Other current assets	\$ 60.6	\$ 56.1
Other noncurrent assets	200.3	210.3
Total asset for probable asbestos-related insurance recoveries	\$ 260.9	\$ 266.4

The Company's asbestos insurance receivables related to Ingersoll-Rand Company and Trane were \$134.0 million and \$126.9 million at March 31, 2018, respectively, and \$138.5 million and \$127.9 million at December 31, 2017, respectively. The receivable attributable to Trane for probable insurance recoveries as of March 31, 2018 is entirely supported by settlement agreements between Trane and the respective insurance carriers. Most of these settlement agreements constitute "coverage-in-place" arrangements, in which the insurer signatories agree to reimburse Trane for specified portions of its costs for asbestos bodily injury claims and Trane agrees to certain claims-handling protocols and grants to the insurer signatories certain releases and indemnifications.

The costs associated with the settlement and defense of asbestos-related claims, insurance settlements on asbestos-related matters and the revaluation of the Company's liability for potential future claims are included in the income statement within continuing operations or discontinued operations depending on the business to which they relate. The income (expense) associated with these transactions, for the three months ended March 31, were as follows:

In millions	Three months ended	
	2018	2017
Continuing operations	\$1.5	\$—
Discontinued operations	(7.2)	(3.3)
Total	\$(5.7)	\$(3.3)

Ongoing income and expenses associated with Ingersoll-Rand Company's asbestos-related matters are recorded within discontinued operations as they relate to previously divested businesses, primarily Ingersoll-Dresser Pump, which was sold by the Company in 2000. Ongoing income and expenses associated with Trane's asbestos-related matters are recorded within continuing operations.

In 2012 and 2013, Ingersoll-Rand Company filed actions in the Superior Court of New Jersey, Middlesex County, seeking a declaratory judgment and other relief regarding the Company's rights to defense and indemnity for asbestos claims. The defendants were several dozen solvent insurance companies, including companies that had been paying a portion of Ingersoll-Rand Company's asbestos claim defense and indemnity costs. The responding defendants generally challenged the Company's right to recovery, and raised various coverage defenses. Since filing the actions, Ingersoll-Rand Company has settled with approximately two-thirds of the insurer defendants, and has dismissed one of the actions in its entirety.

The Company continually monitors the status of pending litigation that could impact the allocation of asbestos claims against the Company's various insurance policies. The Company has concluded that its Ingersoll-Rand Company insurance receivable is probable of recovery because of the following factors:

- Ingersoll-Rand Company has reached favorable settlements regarding asbestos coverage claims for the majority of its recorded asbestos-related insurance receivable;

- a review of other companies in circumstances comparable to Ingersoll-Rand Company, including Trane, and the success of other companies in recovering under their insurance policies, including Trane's favorable settlements referenced above;

- the Company's confidence in its right to recovery under the terms of its policies and pursuant to applicable law; and
- the Company's history of receiving payments under the Ingersoll-Rand Company insurance program, including under policies that had been the subject of prior litigation.

The amounts recorded by the Company for asbestos-related liabilities and insurance-related assets are based on currently available information. The Company's actual liabilities or insurance recoveries could be significantly higher or lower than those recorded if assumptions used in the calculations vary significantly from actual results. Key variables in these assumptions include the number and type of new claims to be filed each year, the average cost of resolution of each such new claim, the resolution of coverage issues with insurance carriers, and the solvency risk with respect to the Company's insurance carriers. Furthermore, predictions with respect to these variables are subject to greater uncertainty as the projection period lengthens. Other factors that may affect the Company's liability include uncertainties surrounding the litigation process from jurisdiction to jurisdiction and from case to case, reforms that may be made by state and federal courts, and the passage of state or federal tort reform legislation.

The aggregate amount of the stated limits in insurance policies available to the Company for asbestos-related claims acquired over many years and from many different carriers, is substantial. However, limitations in that coverage, primarily due to the considerations described above, are expected to result in the projected total liability to claimants substantially exceeding the probable insurance recovery.

Warranty Liability

Standard product warranty accruals are recorded at the time of sale and are estimated based upon product warranty terms and historical experience. The Company assesses the adequacy of its liabilities and will make adjustments as necessary based on known or anticipated warranty claims, or as new information becomes available.

The changes in the standard product warranty liability for the three months ended March 31 were as follows:

In millions	2018	2017
Balance at beginning of period	\$270.5	\$261.6
Reductions for payments	(35.5)	(31.1)
Accruals for warranties issued during the current period	34.0	28.3
Changes to accruals related to preexisting warranties	1.0	(1.8)
Translation	1.5	1.2
Balance at end of period	\$271.5	\$258.2

Standard product warranty liabilities are classified as Accrued expenses and other current liabilities or Other noncurrent liabilities based on their expected term. The Company's total current standard product warranty reserve at March 31, 2018 and December 31, 2017 was \$146.7 million and \$144.5 million, respectively.

The Company's extended warranty liability represents the deferred revenue associated with its extended warranty contracts and is amortized into Net revenues on a straight-line basis over the life of the contract, unless another method is more representative of the costs incurred. The Company assesses the adequacy of its liability by evaluating the expected costs under its existing contracts to ensure these expected costs do not exceed the extended warranty liability.

The changes in the extended warranty liability for the three months ended March 31 were as follows:

In millions	2018	2017
Balance at beginning of period	\$293.0	\$295.9
Amortization of deferred revenue for the period	(26.0)	(25.1)
Additions for extended warranties issued during the period	23.8	24.4
Changes to accruals related to preexisting warranties	(0.3)	0.5
Translation	0.4	0.3
Balance at end of period	\$290.9	\$296.0

The extended warranty liability is classified as Accrued expenses and other current liabilities or Other noncurrent liabilities based on the timing of when the deferred revenue is expected to be amortized into revenue. The Company's total current extended warranty liability at March 31, 2018 and December 31, 2017 was \$100.5 million and \$100.0 million, respectively.

Other Commitments and Contingencies

Trane has commitments and performance guarantees, including energy savings guarantees, totaling approximately \$393 million extending from 2018-2037. These guarantees are provided under long-term service and maintenance contracts related to its air conditioning equipment and system controls. Through March 31, 2018, the Company has experienced no significant losses under such arrangements and considers the probability of any significant future losses to be remote.

Note 20. Guarantor Financial Information

Ingersoll-Rand plc (Plc or Parent Company) and certain of its 100% directly or indirectly owned subsidiaries provide guarantees of public debt issued by other 100% directly or indirectly owned subsidiaries. The following condensed consolidating financial information is provided so that separate financial statements of these subsidiary issuer and guarantors are not required to be filed with the U.S. Securities and Exchange Commission.

The following table shows the Company's guarantor relationships as of March 31, 2018:

Parent, issuer or guarantors	Notes issued	Notes guaranteed ⁽¹⁾
Ingersoll-Rand plc (Plc)	None	All registered notes and debentures
Ingersoll-Rand Irish Holdings Unlimited Company (Irish Holdings)	None	All notes issued by Global Holding and Lux Finance
Ingersoll-Rand Lux International Holding Company S.à.r.l. (Lux International)	None	All notes issued by Global Holding and Lux Finance
	2.900% Senior notes due 2021	
	4.250% Senior notes due 2023	
Ingersoll-Rand Global Holding Company Limited (Global Holding)	3.750% Senior notes due 2028	All notes issued by Lux Finance
	5.750% Senior notes due 2043	
	4.300% Senior notes due 2048	
	9.000% Debentures due 2021	
Ingersoll-Rand Company (New Jersey)	7.200% Debentures due 2018-2025	All notes issued by Global and Lux Finance
	6.480% Debentures due 2025	
	Puttable debentures due 2027-2028	
Ingersoll-Rand Luxembourg Finance S.A. (Lux Finance)	2.625% Notes due 2020	All notes and debentures issued by Global and New Jersey
	3.550% Notes due 2024	
	4.650% Notes due 2044	

(1) All subsidiary issuers and all guarantors provide irrevocable guarantees of borrowings, if any, made under revolving credit facilities.

Each subsidiary debt issuer and guarantor is owned 100% directly or indirectly by the Parent Company. Each guarantee is full and unconditional, and provided on a joint and several basis. There are no significant restrictions of the Parent Company, or any guarantor, to obtain funds from its subsidiaries, such as provisions in debt agreements that prohibit dividend payments, loans or advances to the parent by a subsidiary.

Basis of presentation

The following Condensed Consolidating Financial Statements present the financial position, results of operations and cash flows of each issuer or guarantor on a legal entity basis. The financial information for all periods has been presented based on the Company's legal entity ownerships and guarantees outstanding at March 31, 2018. Assets and liabilities are attributed to each issuer and guarantor generally based on legal entity ownership. Investments in subsidiaries of the Parent Company, subsidiary guarantors and issuers represent the proportionate share of their subsidiaries' net assets. Certain adjustments are needed to consolidate the Parent Company and its subsidiaries, including the elimination of investments in subsidiaries and related activity that occurs between entities in different columns. These adjustments are presented in the Consolidating Adjustments column. This basis of presentation is intended to comply with the specific reporting requirements for subsidiary issuers and guarantors, and is not intended to present the Company's financial position or results of operations or cash flows for any other purpose.

Condensed Consolidating Statement of Comprehensive Income
For the three months ended March 31, 2018

In millions	Plc	Irish Holdings	Lux International	Global Holding	New Jersey	Lux Finance	Other Subsidiaries	Consolidating Adjustments	Consolidated
Net revenues	\$—	\$—	\$—	\$—	\$347.6	\$—	\$3,140.7	\$(103.8)	\$3,384.5
Cost of goods sold	—	—	—	—	(253.8)	—	(2,270.2)	103.8	(2,420.2)
Selling and administrative expenses	(1.7)	—	—	(0.1)	(136.3)	—	(582.8)	—	(720.9)
Operating income (loss)	(1.7)	—	—	(0.1)	(42.5)	—	287.7	—	243.4
Equity earnings (loss) in subsidiaries, net of tax	124.2	123.5	110.9	118.3	162.7	39.2	—	(678.8)	—
Interest expense	—	—	—	(50.3)	(11.8)	(10.6)	(0.2)	—	(72.9)
Intercompany interest and fees	(1.0)	—	4.0	(27.8)	6.3	(2.4)	20.9	—	—
Other income/(expense), net	—	—	—	0.7	(3.6)	0.1	(1.2)	—	(4.0)
Earnings (loss) before income taxes	121.5	123.5	114.9	40.8	111.1	26.3	307.2	(678.8)	166.5
Benefit (provision) for income taxes	(1.1)	—	0.3	17.7	16.4	—	(66.3)	—	(33.0)
Earnings (loss) from continuing operations	120.4	123.5	115.2	58.5	127.5	26.3	240.9	(678.8)	133.5
Discontinued operations, net of tax	—	—	—	—	(9.3)	—	(0.1)	—	(9.4)
Net earnings (loss)	120.4	123.5	115.2	58.5	118.2	26.3	240.8	(678.8)	124.1
Less: Net earnings attributable to noncontrolling interests	—	—	—	—	—	—	(3.7)	—	(3.7)
Net earnings (loss) attributable to Ingersoll-Rand plc	\$120.4	\$123.5	\$115.2	\$58.5	\$118.2	\$26.3	\$237.1	\$(678.8)	\$120.4
Other comprehensive income (loss), net of tax	152.1	151.9	144.2	105.8	105.2	37.3	145.8	(690.2)	152.1
Comprehensive income (loss) attributable to Ingersoll-Rand plc	\$272.5	\$275.4	\$259.4	\$164.3	\$223.4	\$63.6	\$382.9	\$(1,369.0)	\$272.5

Condensed Consolidating Statement of Comprehensive Income

For the three months ended March 31, 2017

in millions	Plc	Irish Holdings	Lux International	Global Holding	New Jersey	Lux Finance	Other Subsidiaries	Consolidating Adjustments	Consolidated
Net revenues	\$—	\$—	\$—	\$—	\$316.3	\$—	\$2,777.8	\$(93.5)	\$3,000.6
Cost of goods sold	—	—	—	—	(234.6)	—	(1,985.0)	93.5	(2,126.1)
Selling and administrative expenses	(2.3)	—	—	(0.9)	(121.3)	(0.1)	(534.9)	—	(659.5)
Operating income (loss)	(2.3)	—	—	(0.9)	(39.6)	(0.1)	257.9	—	215.0
Equity earnings (loss) in subsidiaries, net of tax	124.9	117.4	93.9	23.0	107.1	6.0	—	(472.3)	—
Interest expense	—	—	—	(31.7)	(11.9)	(10.3)	(0.1)	—	(54.0)
Intercompany interest and fees	(5.8)	—	(13.5)	(42.7)	(74.2)	(1.9)	138.1	—	—
Other income/(expense), net	—	—	—	—	(2.7)	—	(2.0)	—	(4.7)
Earnings (loss) before income taxes	116.8	117.4	80.4	(52.3)	(21.3)	(6.3)	393.9	(472.3)	156.3
Benefit (provision) for income taxes	0.3	—	—	27.4	50.0	—	(106.4)	—	(28.7)
Earnings (loss) from continuing operations	117.1	117.4	80.4	(24.9)	28.7	(6.3)	287.5	(472.3)	127.6
Discontinued operations, net of tax	—	—	—	—	(5.8)	—	(0.7)	—	(6.5)
Net earnings (loss)	117.1	117.4	80.4	(24.9)	22.9	(6.3)	286.8	(472.3)	121.1
Less: Net earnings attributable to noncontrolling interests	—	—	—	—	—	—	(4.0)	—	(4.0)
Net earnings (loss) attributable to Ingersoll-Rand plc	\$117.1	\$117.4	\$80.4	\$(24.9)	\$22.9	\$(6.3)	\$282.8	\$(472.3)	\$117.1
Other comprehensive income (loss), net of tax	120.6	120.3	114.9	78.0	77.9	36.1	118.1	(545.3)	120.6
Comprehensive income (loss) attributable to Ingersoll-Rand plc	\$237.7	\$237.7	\$195.3	\$53.1	\$100.8	\$29.8	\$400.9	\$(1,017.6)	\$237.7

Condensed Consolidating Balance Sheet
March 31, 2018

In millions	Plc	Irish Holdings	Lux International	Global Holding	New Jersey	Lux Finance	Other Subsidiaries	Consolidating Adjustments	Consolidated
ASSETS									
Current assets:									
Cash and cash equivalents	\$—	\$—	\$ 0.1	\$—	\$35.6	\$0.1	\$ 1,139.3	\$—	\$ 1,175.1
Accounts and notes receivable, net	—	—	—	0.5	162.6	—	2,352.9	—	2,516.0
Inventories, net	—	—	—	—	160.7	—	1,618.1	—	1,778.8
Other current assets	0.3	—	5.7	107.6	106.0	—	382.0	—	601.6
Intercompany receivables	1,852.8	1,503.9	2,049.7	—	2,053.2	—	4,931.8	(12,391.4)	—
Total current assets	1,853.1	1,503.9	2,055.5	108.1	2,518.1	0.1	10,424.1	(12,391.4)	6,071.5
Property, plant and equipment, net	—	—	—	—	291.4	—	1,319.9	—	1,611.3
Goodwill and other intangible assets, net	—	—	—	—	434.0	—	9,441.2	—	9,875.2
Other noncurrent assets	—	—	4.3	185.1	449.2	—	550.5	(382.0)	807.1
Investments in consolidated subsidiaries	7,530.9	5,986.8	3,001.0	10,619.3	11,159.6	1,228.0	—	(39,525.6)	—
Total assets	\$9,384.0	\$7,490.7	\$5,060.8	\$10,912.5	\$14,852.3	\$1,228.1	\$21,735.7	\$(52,299.0)	\$18,365.1
LIABILITIES AND EQUITY									
Current liabilities:									
Accounts payable and accrued expenses	\$8.3	\$—	\$ 0.2	\$23.6	\$520.5	\$16.7	\$3,146.2	\$—	\$3,715.5
Short-term borrowings and current maturities of long-term debt	—	—	—	—	350.4	247.9	6.9	—	605.2
Intercompany payables	2,295.0	2.5	918.1	5,523.2	1,832.5	278.2	1,541.9	(12,391.4)	—
Total current liabilities	2,303.3	2.5	918.3	5,546.8	2,703.4	542.8	4,695.0	(12,391.4)	4,320.7
Long-term debt	—	—	—	2,328.2	326.9	1,090.1	0.3	—	3,745.5

Edgar Filing: MAP Pharmaceuticals, Inc. - Form 424B5

Other noncurrent liabilities	—	—	—	93.7	1,212.5	—	2,234.3	(382.0	) 3,158.5
Total liabilities	2,303.3	2.5	918.3	7,968.7	4,242.8	1,632.9	6,929.6	(12,773.4	) 11,224.7
Equity:									
Total equity	7,080.7	7,488.2	4,142.5	2,943.8	10,609.5	(404.8	) 14,806.1	(39,525.6	) 7,140.4
Total liabilities and equity	\$9,384.0	\$7,490.7	\$5,060.8	\$10,912.5	\$14,852.3	\$1,228.1	\$21,735.7	\$(52,299.0)	\$18,365.1

30

INGERSOLL-RAND PLC

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

Condensed Consolidating Balance Sheet

December 31, 2017

In millions	Plc	Irish Holdings	Lux International	Global Holding	New Jersey	Lux Finance	Other Subsidiaries	Consolidating Adjustments	Consolidated
ASSETS									
Current assets:									
Cash and cash equivalents	\$—	\$—	\$0.6	\$—	\$359.3	\$—	\$1,189.5	\$—	\$1,549.4
Accounts and notes receivable, net	—	—	—	—	166.5	—	2,310.9	—	2,477.4
Inventories, net	—	—	—	—	168.5	—	1,386.9	—	1,555.4
Other current assets	0.2	—	5.7	112.6	76.2	—	342.2	—	536.9
Intercompany receivables	1,819.1	9,912.2	2,036.8	—	1,849.9	—	5,014.8	(20,632.8)	—
Total current assets	1,819.3	9,912.2	2,043.1	112.6	2,620.4	—	10,244.3	(20,632.8)	6,119.1
Property, plant and equipment, net	—	—	—	—	310.6	—	1,240.7	—	1,551.3
Goodwill and other intangible assets, net	—	—	—	—	436.0	—	9,242.6	—	9,678.6
Other noncurrent assets	—	—	—	185.4	471.1	—	550.8	(383.0)	824.3
Investments in consolidated subsidiaries	7,318.1	1,684.2	2,953.9	10,480.3	10,923.7	1,150.9	—	(34,511.1)	—
Total assets	\$9,137.4	\$11,596.4	\$4,997.0	\$10,778.3	\$14,761.8	\$1,150.9	\$21,278.4	\$(55,526.9)	\$18,173.3
LIABILITIES AND EQUITY									
Current liabilities:									
Accounts payable and accrued expenses	\$8.5	\$—	\$0.2	\$27.3	\$572.3	\$6.9	\$3,105.8	\$—	\$3,721.0
Short-term borrowings and current	—	—	—	749.6	350.4	—	7.0	—	1,107.0

maturities of long-term debt									
Intercompany payables	1,988.3	—	9,316.7	5,481.1	1,790.0	523.3	1,533.4	(20,632.8)	—
Total current liabilities	1,996.8	—	9,316.9	6,258.0	2,712.7	530.2	4,646.2	(20,632.8)	4,828.0
Long-term debt	—	—	—	1,539.9	326.8	1,089.7	0.6	—	2,957.0
Other noncurrent liabilities	0.3	—	—	92.4	1,251.8	—	2,219.9	(383.0)	3,181.4
Total liabilities	1,997.1	—	9,316.9	7,890.3	4,291.3	1,619.9	6,866.7	(21,015.8)	10,966.4
Equity:									
Total equity	7,140.3	11,596.4	(4,319.9)	2,888.0	10,470.5	(469.0)	14,411.7	(34,511.1)	7,206.9
Total liabilities and equity	\$9,137.4	\$11,596.4	\$4,997.0	\$10,778.3	\$14,761.8	\$1,150.9	\$21,278.4	\$(55,526.9)	\$18,173.3

Condensed Consolidating Statement of Cash Flows
For the three months ended March 31, 2018

in millions	Plc	Irish Holding	Lux International	Global Holding	New Jersey	Lux Finance	Other Subsidiaries	Consolidating Adjustments	Consolidated
CASH FLOWS FROM OPERATING ACTIVITIES:									
Net cash provided by (used in) continuing operating activities	\$ 102.6	\$ —	\$ —	\$(32.2)	\$ 19.6	\$(0.3)	\$(135.5)	\$ —	\$(45.8)
Net cash provided by (used in) discontinued operating activities	—	—	—	—	(20.3)	—	(0.1)	—	(20.4)
Net cash provided by (used in) operating activities	102.6	—	—	(32.2)	(0.7)	(0.3)	(135.6)	—	(66.2)
CASH FLOWS FROM INVESTING ACTIVITIES:									
Capital expenditures	—	—	—	—	(8.8)	—	(44.0)	—	(52.8)
Acquisition of businesses, net of cash acquired	—	—	—	—	—	—	(201.6)	—	(201.6)
Advance to equity investment	—	—	(4.0)	—	—	—	—	—	(4.0)
Proceeds from sale of property, plant and equipment	—	—	—	—	—	—	0.7	—	0.7
Intercompany investing activities, net	—	—	(0.5)	—	(208.8)	—	287.0	(77.7)	—
Net cash provided by (used in) continuing investing activities	—	—	(4.5)	—	(217.6)	—	42.1	(77.7)	(257.7)
CASH FLOWS FROM FINANCING ACTIVITIES:									
Net proceeds (repayments) from debt	—	—	—	31.6	—	247.9	—	—	279.5
Debt issuance costs	—	—	—	(8.5)	—	—	—	—	(8.5)
Dividends paid to ordinary shareholders	(111.6)	—	—	—	—	—	—	—	(111.6)
Dividends paid to noncontrolling interests	—	—	—	—	—	—	(11.0)	—	(11.0)
Repurchase of ordinary shares	(250.0)	—	—	—	—	—	—	—	(250.0)
Other financing activities, net	6.6	—	—	—	(0.4)	—	(1.0)	—	5.2
Intercompany financing activities, net	252.4	—	4.0	9.1	(105.0)	(247.5)	9.3	77.7	—
Net cash provided by (used in) continuing financing activities	(102.6)	—	4.0	32.2	(105.4)	0.4	(2.7)	77.7	(96.4)
Effect of exchange rate changes on cash and cash equivalents	—	—	—	—	—	—	46.0	—	46.0
Net increase (decrease) in cash and cash equivalents	—	—	(0.5)	—	(323.7)	0.1	(50.2)	—	(374.3)
Cash and cash equivalents - beginning of period	—	—	0.6	—	359.3	—	1,189.5	—	1,549.4
Cash and cash equivalents - end of period	\$ —	\$ —	\$ 0.1	\$ —	\$ 35.6	\$ 0.1	\$ 1,139.3	\$ —	\$ 1,175.1

Condensed Consolidating Statement of Cash Flows
For the three months ended March 31, 2017

in millions	Plc	Irish Holding	Lux International	Global Holding	New Jersey	Lux Finance	Other Subsidiaries	Consolidating Adjustments	Consolidated
CASH FLOWS FROM OPERATING ACTIVITIES:									
Net cash provided by (used in) continuing operating activities	\$21.6	\$ —	\$ —	\$(72.6)	\$27.3	\$ —	\$(9.6)	\$ —	\$(33.3)
Net cash provided by (used in) discontinued operating activities	—	—	—	—	(17.8)	—	7.7	—	(10.1)
Net cash provided by (used in) operating activities	21.6	—	—	(72.6)	9.5	—	(1.9)	—	(43.4)
CASH FLOWS FROM INVESTING ACTIVITIES:									
Capital expenditures	—	—	—	—	(10.5)	—	(24.7)	—	(35.2)
Acquisition of businesses, net of cash acquired	—	—	—	—	—	—	(9.8)	—	(9.8)
Proceeds from sale of property, plant and equipment	—	—	—	—	—	—	0.4	—	0.4
Intercompany investing activities, net	—	—	1,153.2	72.8	—	11.6	919.7	(2,157.3)	—
Net cash provided by (used in) continuing investing activities	—	—	1,153.2	72.8	(10.5)	11.6	885.6	(2,157.3)	(44.6)
CASH FLOWS FROM FINANCING ACTIVITIES:									
Debt issuance costs	—	—	—	(0.2)	—	—	—	—	(0.2)
Dividends paid to ordinary shareholders	(102.7)	—	—	—	—	—	—	—	(102.7)
Dividends paid to noncontrolling interests	—	—	—	—	—	—	(6.9)	—	(6.9)
Repurchase of ordinary shares	(250.1)	—	—	—	—	—	—	—	(250.1)
Other financing activities, net	16.6	—	—	—	—	—	1.8	—	18.4
Intercompany financing activities, net	314.7	—	(1,153.2)	—	(69.7)	(11.6)	(1,237.5)	2,157.3	—
Net cash provided by (used in) continuing financing activities	(21.5)	—	(1,153.2)	(0.2)	(69.7)	(11.6)	(1,242.6)	2,157.3	(341.5)
Effect of exchange rate changes on cash and cash equivalents	—	—	—	—	—	—	37.3	—	37.3
Net increase (decrease) in cash and cash equivalents	0.1	—	—	—	(70.7)	—	(321.6)	—	(392.2)
Cash and cash equivalents - beginning of period	—	—	—	—	634.6	—	1,080.1	—	1,714.7
Cash and cash equivalents - end of period	\$0.1	\$ —	\$ —	\$ —	\$563.9	\$ —	\$758.5	\$ —	\$1,322.5

Table of Contents

Item 2 – Management’s Discussion and Analysis of Financial Condition and Results of Operations

The following Management’s Discussion and Analysis of Financial Condition and Results of Operations contains forward-looking statements that involve risks and uncertainties. Our actual results may differ materially from the results discussed in the forward-looking statements. Factors that might cause a difference include, but are not limited to, those discussed under Part II, Item 1A – Risk Factors in this Quarterly Report on Form 10-Q; and under Part I, Item 1A – Risk Factors in the Annual Report on Form 10-K for the fiscal year ended December 31, 2017. The following section is qualified in its entirety by the more detailed information, including our financial statements and the notes thereto, which appears elsewhere in this Quarterly Report.

Overview

Organizational

We are a diversified, global company that provides products, services and solutions to enhance the quality, energy efficiency and comfort of air in homes and buildings, transport and protect food and perishables and increase industrial productivity and efficiency. Our business segments consist of Climate and Industrial, both with strong brands and highly differentiated products within their respective markets. We generate revenue and cash primarily through the design, manufacture, sale and service of a diverse portfolio of industrial and commercial products that include well-recognized, premium brand names such as Ingersoll-Rand®, Trane®, Thermo King®, American Standard®, ARO®, and Club Car®.

To achieve our mission of being a world leader in creating comfortable, sustainable and efficient environments, we continue to focus on growth by increasing our recurring revenue stream from parts, service, controls, used equipment and rentals; and to continuously improve the efficiencies and capabilities of the products and services of our businesses. We also continue to focus on operational excellence strategies as a central theme to improving our earnings and cash flows.

Trends and Economic Events

We are a global corporation with worldwide operations. As a global business, our operations are affected by worldwide, regional and industry-specific economic factors, as well as political factors, wherever we operate or do business. Our geographic and industry diversity, and the breadth of our product and services portfolios, have helped mitigate the impact of any one industry or the economy of any single country on our consolidated operating results. Given the broad range of products manufactured and geographic markets served, management uses a variety of factors to predict the outlook for the Company. We monitor key competitors and customers in order to gauge relative performance and the outlook for the future. We regularly perform detailed evaluations of the different market segments we are serving to proactively detect trends and to adapt our strategies accordingly. In addition, we believe our order rates are indicative of future revenue and thus a key measure of anticipated performance. In those industry segments where we are a capital equipment provider, revenues depend on the capital expenditure budgets and spending patterns of our customers, who may delay or accelerate purchases in reaction to changes in their businesses and in the economy.

Current economic conditions continue to show mixed trends in each of the segments in which we participate. Heating, Ventilation, and Air Conditioning (HVAC) equipment replacement and aftermarket continue to experience strong demand. In addition, Residential and Commercial new construction have seen continued momentum in the United States which is positively impacting the results of our HVAC businesses. However, non-residential markets in Europe, Middle East and Asia remain mixed. Global Industrial markets appear to be improving with positive signs in our shorter-cycle businesses. Going forward, we expect moderate growth within our Climate segment and market improvements in our Industrial segment, each benefiting from operational excellence initiatives, new product launches and continued productivity programs.

We believe we have a solid foundation of global brands and strong market positions in all of our major product lines. Our growing geographic and industry diversity coupled with our large installed product base provides growth opportunities within our service, parts and replacement revenue streams. In addition, we are investing substantial resources to innovate and develop new products and services which we expect will drive our future growth.

Significant Events

Tax Cuts and Job Act

In December 2017, the U.S. enacted the Tax Cuts and Jobs Act (the “Act”) which makes widespread changes to the Internal Revenue Code. The Act, among other things, reduced the U.S. federal corporate tax rate from 35% to 21%, requires companies to pay a transition tax on earnings of certain foreign subsidiaries that were previously not subject to U.S. tax and creates new income taxes on certain foreign sourced earnings. The SEC issued Staff Accounting Bulletin No. 118 (SAB 118) which provides guidance on accounting for the tax effects of the Act and allows for adjustments to provisional amounts during a measurement period of up to one year. In accordance with SAB 118, we have made reasonable estimates related to (1) the remeasurement of U.S. deferred tax balances for the reduction in the tax rate, (2) the liability for the transition tax and (3) the taxes accrued relating to the change in permanent reinvestment assertion for unremitted earnings of certain foreign subsidiaries. As a result, we recognized

Table of Contents

a net provisional income tax benefit of \$21.0 million associated with these items in 2017. We are continuing to evaluate how the provisions of the Act will be accounted for under ASC 740, "Income Taxes" (ASC 740). The analysis is provisional and is subject to change due to the additional time required to accurately calculate and review the complex tax law. Measurement period adjustments will be reported as a component of Provision for income taxes in the reporting period the amounts are determined. The final accounting will be completed no later than one year from the enactment of the Act. For the quarter ended March 31, 2018, we have not made any adjustments to the provisional amounts recorded as of December 31, 2017.

Issuance and Redemption of Senior Notes

In February 2018, we issued \$1.15 billion principal amount of senior notes in three tranches through an indirect, wholly-owned subsidiary. The tranches consist of \$300 million aggregate principal amount of 2.900% senior notes due 2021, \$550 million aggregate principal amount of 3.750% senior notes due 2028 and \$300 million aggregate principal amount of 4.300% senior notes due 2048. In March 2018, we used the proceeds to fund the redemption of \$750 million aggregate principal amount of 6.875% senior notes due 2018 and \$350 million aggregate principal amount of 2.875% senior notes due 2019, with the remainder used for general corporate purposes.

Acquisitions

During the three months ended March 31, 2018, the Company acquired several businesses. The aggregate cash paid, net of cash acquired, totaled \$201.6 million and was funded through cash on hand. Activity during the period primarily related to the acquisition of ICS Group Holdings Limited. The business, reported within the Climate segment, specializes in the temporary rental of energy efficient chillers for commercial and industrial buildings across Europe. In addition, the Company continues to acquire independent dealers to expand its distribution networks. On January 17, 2018, we entered into an agreement with Mitsubishi Electric Corporation (Mitsubishi) to establish a joint venture, pending regulatory review and approval, and customary closing conditions. The joint venture will focus on marketing, selling and supporting variable refrigerant flow (VRF) and ductless heating and air conditioning systems through Trane, American Standard and Mitsubishi channels in the U.S. and select Latin American countries. We will have equal ownership in the joint venture with Mitsubishi. It is expected to be operational in the second quarter of 2018.

Share Repurchase Program and Dividends

Share repurchases are made from time to time in accordance with our capital allocation strategy, subject to market conditions and regulatory requirements. In February 2017, our Board of Directors authorized the repurchase of up to \$1.5 billion of our ordinary shares. Repurchases under this program, which began in May 2017, totaled approximately \$600 million at December 31, 2017 and are held in treasury. During the three months ended March 31, 2018, we repurchased and canceled approximately \$250 million of our ordinary shares.

In August 2017, we announced an increase in our quarterly share dividend from \$0.40 to \$0.45 per ordinary share. This reflects a 12.5% increase that began with our September 2017 payment.

Table of Contents

Results of Operations

Our Climate segment delivers energy-efficient products and innovative energy services. It includes Trane® and American Standard® Heating & Air Conditioning which provide heating, ventilation and air conditioning (HVAC) systems, and commercial and residential building services, parts, support and controls; energy services and building automation through Trane Building Advantage and Nexia; and Thermo King® transport temperature control solutions. Our Industrial segment delivers products and services that enhance energy efficiency, productivity and operations. It includes compressed air and gas systems and services, power tools, material handling systems, ARO® fluid management equipment, as well as Club Car® golf, utility and consumer low-speed vehicles.

Segment operating income is the measure of profit and loss that our chief operating decision maker uses to evaluate the financial performance of the business and as the basis for performance reviews, compensation and resource allocation. For these reasons, we believe that Segment operating income represents the most relevant measure of segment profit and loss. We define Segment operating margin as Segment operating income as a percentage of Net revenues.

On January 1, 2018, we adopted Accounting Standards Update No. 2014-09, "Revenue from Contracts with Customers" (ASC 606), which created a comprehensive, five-step model for revenue recognition that requires a company to recognize revenue to depict the transfer of promised goods or services to a customer at an amount that reflects the consideration it expects to receive in exchange for those goods or services. We adopted this standard on January 1, 2018 using the modified retrospective approach and recorded a cumulative effect adjustment to increase Retained earnings by \$2.4 million. Related amounts did not materially impact Net revenues, Operating income or the Balance Sheet.

Three Months Ended March 31, 2018 Compared to the Three Months Ended March 31, 2017

In millions, except per share amounts	2018	2017	Period Change	2018 % of revenues	2017 % of revenues
Net revenues	\$3,384.5	\$3,000.6	\$383.9		
Cost of goods sold	(2,420.2)	(2,126.1)	(294.1)	71.5 %	70.9 %
Selling and administrative expenses	(720.9)	(659.5)	(61.4)	21.3 %	22.0 %
Operating income	243.4	215.0	28.4	7.2 %	7.2 %
Interest expense	(72.9)	(54.0)	(18.9)		
Other income/(expense), net	(4.0)	(4.7)	0.7		
Earnings before income taxes	166.5	156.3	10.2		
Provision for income taxes	(33.0)	(28.7)	(4.3)		
Earnings from continuing operations	133.5	127.6	5.9		
Discontinued operations, net of tax	(9.4)	(6.5)	(2.9)		
Net earnings	\$124.1	\$121.1	\$3.0		

Net Revenues

Net revenues for the three months ended March 31, 2018 increased by 12.8%, or \$383.9 million, compared with the same period in 2017, which resulted from the following:

Volume/product mix	7.7 %
Acquisitions	1.2 %
Pricing	0.7 %
Currency translation	3.2 %
Total	12.8 %

The increase was primarily driven by higher volumes in both our Climate and Industrial segments. Improved pricing, along with incremental revenues from acquisitions, further contributed to their year-over-year increase. In addition, each segment benefited from favorable foreign currency exchange rate movements.

Table of Contents

Our revenues by segment for the three month period ended March 31 are as follows:

Dollar amounts in millions	2018	2017	% change
Climate	\$2,609.8	\$2,324.1	12.3%
Industrial	774.7	676.5	14.5%
Total	\$3,384.5	\$3,000.6	

Climate

Net revenues for the three months ended March 31, 2018 increased by 12.3% or \$285.7 million, compared with the same period of 2017. The components of the period change are as follows:

Volume/product mix	7.8 %
Acquisitions	1.2 %
Pricing	0.6 %
Currency translation	2.7 %
Total	12.3 %

The primary driver of the increase related to incremental volumes from solid order growth and positive pricing. The segment also benefited from incremental revenue from acquisitions during the period. In addition, segment results benefited from favorable foreign currency exchange rate movements.

Industrial

Net revenues for the three months ended March 31, 2018 increased by 14.5% or \$98.2 million, compared with the same period of 2016. The components of the period change are as follows:

Volume/product mix	7.3 %
Acquisitions	1.3 %
Pricing	1.2 %
Currency translation	4.7 %
Total	14.5 %

The primary driver of the increase related to incremental volumes in each of our businesses. Improved pricing and incremental revenues from acquisitions further contributed to the year-over-year increase in the segment. In addition, segment results benefited from favorable foreign currency exchange rate movements.

Operating Income/Margin

Operating margin remained flat at 7.2% for the three months ended March 31, 2018 compared to the same period in 2017. Results benefited from incremental volume and favorable product mix (1.2%) and foreign currency exchange rate movements (0.2%). These amounts were offset by increased restructuring actions and investment spending (0.7%), material inflation in excess of pricing (0.5%), other inflation in excess of productivity benefits (0.1%) and step up amortization related to recent acquisitions (0.1%).

Dollar amounts in millions	2018	2017	Period Change	2018	2017
	Operating Income (Expense)	Operating Income (Expense)		Operating Margin	Operating Margin
Climate	\$ 260.4	\$ 217.3	\$ 43.1	10.0 %	9.4 %
Industrial	59.9	65.8	(5.9)	7.7 %	9.7 %
Unallocated corporate expenses	(76.9)	(68.1)	(8.8)	N/A	N/A
Total	\$ 243.4	\$ 215.0	\$ 28.4	7.2 %	7.2 %

Climate

Operating margin increased to 10.0% for the three months ended March 31, 2018, compared to 9.4% for the same period of 2017. The increase was due to a reduction in restructuring actions and investment spending (1.0%), incremental volume and favorable

Table of Contents

product mix (0.7%) and favorable foreign currency exchange rate movements (0.1%). These amounts were partially offset by material inflation in excess of pricing (0.7%), other inflation in excess of productivity benefits (0.4%) and step-up amortization related to recent acquisitions (0.1%).

Industrial

Operating margin decreased to 7.7% for the three months ended March 31, 2018 compared to 9.7% for the same period of 2017. The decrease was due to restructuring actions and investment spending (5.8%) as well as step-up amortization related to recent acquisitions (0.1%). These amounts were partially offset by incremental volume and favorable product mix (2.1%), productivity in excess of other inflation (1.1%), pricing improvements in excess of material inflation (0.3%) and favorable foreign currency exchange rate movements (0.4%).

Unallocated Corporate Expenses

Unallocated corporate expenses for the three months ended March 31, 2018 increased by \$8.8 million compared with the same period of 2017. The increase in expenses primarily relates to higher compensation and benefit charges related to variable compensation and restructuring actions.

Interest Expense

Interest expense for the three months ended March 31, 2018 increased \$18.9 million compared with the same period of 2017. The increase primarily relates to the redemption of \$750 million aggregate principal amount of 6.875% senior notes due 2018 and \$350 million aggregate amount of 2.875% senior notes due 2019. As a result of the early redemption, we recognized \$15.4 million of premium expense and \$1.2 million of unamortized costs in Interest expense.

Other Income/(Expense), Net

The components of Other income/(expense), net for the three months ended March 31 are as follows:

In millions	2018	2017
Interest income	\$3.6	\$3.1
Exchange gain (loss)	(7.3)	1.9
Other components of net periodic benefit cost	(3.9)	(8.2)
Other activity, net	3.6	(1.5)
Other income/(expense), net	\$(4.0)	\$(4.7)

Other income /(expense), net includes the results from activities other than normal business operations such as interest income and foreign currency gains and losses on transactions that are denominated in a currency other than an entity's functional currency. In addition, we include the components of net periodic benefit cost for pension and post retirement obligations other than the service cost component. Other activity, net include costs associated with Trane U.S. Inc. (Trane) for the settlement and defense of asbestos-related claims, insurance settlements on asbestos-related matters and the revaluation of its liability for potential future claims.

Provision for Income Taxes

For the three months ended March 31, 2018, our effective tax rate was 19.8% which is lower than the U.S. statutory rate of 21% primarily due to excess tax benefits from employee share-based payments and earnings in non-U.S. jurisdictions, which in aggregate have a lower effective tax rate partially offset by U.S. state and local income taxes. The effective tax rate for the three months ended March 31, 2017 was 18.4% which was lower than the U.S. statutory rate of 35% primarily due to excess tax benefits from employee share-based payments and earnings in non-U.S. jurisdictions, which in aggregate have a lower effective tax rate. In general, when comparing the results of multiple reporting periods, among other factors, the mix of earnings between U.S. and foreign jurisdictions can cause variability on our overall effective tax rate.

Liquidity and Capital Resources

We assess our liquidity in terms of our ability to generate cash to fund our operating, investing and financing activities. In doing so, we review and analyze our current cash on hand, the number of days our sales are outstanding, inventory turns, capital expenditure commitments and income tax payments. Our cash requirements primarily consist of the following:

Funding of working capital

Funding of capital expenditures

Debt service requirements

38

Table of Contents

Our primary sources of liquidity include cash balances on hand, cash flows from operations, proceeds from debt offerings, commercial paper, and borrowing availability under our existing credit facilities. We earn a significant amount of our operating income in jurisdictions where it is deemed to be permanently reinvested. Our most prominent jurisdiction of operation is the U.S. We expect existing cash and cash equivalents available to the U.S. operations, the cash generated by our U.S. operations, our committed credit lines as well as our expected ability to access the capital and debt markets will be sufficient to fund our U.S. operating and capital needs for at least the next twelve months and thereafter for the foreseeable future. In addition, we expect existing non-U.S. cash and cash equivalents and the cash generated by our non-U.S. operations will be sufficient to fund our non-U.S. operating and capital needs for at least the next twelve months and thereafter for the foreseeable future.

As of March 31, 2018, we had approximately \$1.2 billion of cash and cash equivalents on hand, of which approximately \$1.1 billion was held by non-U.S. subsidiaries. Cash and cash equivalents held by our non-U.S. subsidiaries are generally available for use in our U.S. operations via intercompany loans, equity infusions or via distributions from direct or indirectly owned non-U.S. subsidiaries for which we do not elect permanent reinvestment. We currently have no plans to repatriate funds from subsidiaries for which we elect permanent reinvestment to fund our U.S. operations. However, if we decided to repatriate such funds to fund our U.S. operations, we would be required to accrue and pay applicable taxes.

Share repurchases are made from time to time in accordance with our capital allocation strategy, subject to market conditions and regulatory requirements. In February 2017, our Board of Directors authorized the repurchase of up to \$1.5 billion of our ordinary shares. Repurchases under this program, which began in May 2017, totaled approximately \$600 million at December 31, 2017 and are held in treasury. During the three months ended March 31, 2018, we repurchased and canceled approximately \$250 million of our ordinary shares.

In August 2017, we announced an increase in our quarterly share dividend from \$0.40 to \$0.45 per ordinary share. This reflects a 12.5% increase that began with our September 2017 payment. In addition, we incur ongoing costs associated with restructuring initiatives intended to result in improved operating performance, profitability and working capital levels. Actions associated with these initiatives may include workforce reduction, improving manufacturing productivity, realignment of management structures and rationalizing certain assets. We continue to be active with acquisitions. Since the beginning of 2017, we acquired several businesses, including channel acquisitions, that complement existing products and services further growing our product portfolio. We expect that our available cash flow, committed credit lines and access to the capital markets will be sufficient to fund share repurchases, the increased dividends, ongoing restructuring actions and acquisitions.

Liquidity

The following table contains several key measures of our financial condition and liquidity at the period ended:

In millions	March 31, 2018	December 31, 2017
Cash and cash equivalents	\$1,175.1	\$1,549.4
Short-term borrowings and current maturities of long-term debt	605.2	1,107.0
Long-term debt	3,745.5	2,957.0
Total debt	4,350.7	4,064.0
Total Ingersoll-Rand plc shareholders' equity	7,080.7	7,140.3
Total equity	7,140.4	7,206.9
Debt-to-total capital ratio	37.9	% 36.1

Debt and Credit Facilities

Our short-term obligations primarily consist of current maturities of long-term debt. In addition, we have outstanding \$343.0 million of fixed rate debentures that contain a put feature that the holders may exercise on each anniversary of the issuance date. If exercised, we are obligated to repay in whole or in part, at the holder's option, the outstanding principal amount (plus accrued and unpaid interest) of the debentures held by the holder. We also maintain a commercial paper program which is used for general corporate purposes. Under the program, the maximum aggregate amount of unsecured commercial paper notes available to be issued, on a private placement basis, is \$2 billion as of March 31, 2018. We had \$247.9 million of commercial paper outstanding at March 31, 2018. See Note 6 to the

Consolidated Financial Statements for additional information regarding the terms of our short-term obligations. Our long-term obligations primarily consist of long-term debt with final maturity dates ranging between 2019 and 2048. In addition, we maintain two 5-year, \$1.0 billion revolving credit facilities. Each senior unsecured credit facility provides support for our commercial paper program and can be used for working capital and other general corporate purposes. Total commitments of \$2.0 billion were unused at March 31, 2018 and December 31, 2017. On April 17, 2018, the Company entered into a new 5-

Table of Contents

year, \$1.0 billion senior unsecured credit facility and terminated its 5-year, \$1.0 billion facility set to expire in March 2019. As a result, the current maturity dates of the revolving credit facilities are March 2021 and March 2023. In February 2018, the Company issued \$1.15 billion principal amount of senior notes in three tranches through an indirect, wholly-owned subsidiary. The tranches consist of \$300 million aggregate principal amount of 2.900% senior notes due 2021, \$550 million aggregate principal amount of 3.750% senior notes due 2028 and \$300 million aggregate principal amount of 4.300% senior notes due 2048. In March 2018, the Company used the proceeds to fund the redemption of \$750 million aggregate principal amount of 6.875% senior notes due 2018 and \$350 million aggregate principal amount of 2.875% senior notes due 2019, with the remainder used for general corporate purposes. As a result of the early redemption, the Company recognized \$15.4 million of premium expense and \$1.2 million of unamortized costs in Interest expense. See Note 6 and Note 20 to the Condensed Consolidated Financial Statements for additional information regarding the terms of our long-term obligations and their related guarantees.

Cash Flows

The following table reflects the major categories of cash flows for the three months ended March 31. For additional details, see the Condensed Consolidated Statements of Cash Flows in the condensed consolidated financial statements.

In millions	2018	2017
Net cash provided by (used in) continuing operating activities	\$(45.8)	\$(33.3)
Net cash provided by (used in) continuing investing activities	(257.7)	(44.6)
Net cash provided by (used in) continuing financing activities	(96.4)	(341.5)

Operating Activities

Net cash used in continuing operating activities for the three months ended March 31, 2018 was \$45.8 million, of which net income provided \$284.9 million after adjusting for non-cash transactions. Changes in assets and liabilities, net used \$330.7 million. Improvements in accounts receivable and accounts payable were more than offset by the seasonal increase to inventory balances. Net cash used in continuing operating activities for the three months ended March 31, 2017 was \$33.3 million, of which net income provided \$259.7 million after adjusting for non-cash transactions. Changes in assets and liabilities, net used \$293.0 million. Improvements in accounts receivable and accounts payable were more than offset by the seasonal increase to inventory balances.

Investing Activities

Cash flows from investing activities represents inflows and outflows regarding the purchase and sale of assets. Primary activities associated with these items include capital expenditures, proceeds from the sale of property, plant and equipment, acquisitions and divestitures. During the three months ended March 31, 2018, net cash used in investing activities from continuing operations was \$257.7 million. The primary driver of the usage is attributable to acquisitions during the period. The total outflow, net of cash acquired, was \$201.6 million. In addition, capital expenditures totaled \$52.8 million. Net cash used in investing activities from continuing operations for the three months ended March 31, 2017 was \$44.6 million. The primary driver of the usage was attributable to capital expenditures of \$35.2 million. In addition, we completed an acquisition during the period.

Financing Activities

Cash flows from financing activities represents inflows and outflows that account for external activities affecting equity and debt. Primary activities associated with these actions include paying dividends to shareholders, repurchasing our own shares, issuing our own stock and debt transactions. During the three months ended March 31, 2018, net cash used in financing activities from continuing operations was \$96.4 million. Primary drivers of the cash outflow include dividends paid to ordinary shareholders of \$111.6 million and the repurchase of \$250.0 million in ordinary shares. These amounts were partially offset by borrowings from commercial paper during the period. In addition, we issued \$1.15 billion of senior notes during the three months ended March 31, 2018. The issuance was predominately offset by the redemption of \$1.1 billion of senior notes. Net cash used in financing activities from continuing operations for the three months ended March 31, 2017 was \$341.5 million. The cash outflow for dividends paid to ordinary shareholders of \$102.7 million and the repurchase of \$250.1 million in ordinary shares were the primary drivers of the cash outflow for the period.

Discontinued Operations

Cash flows from discontinued operations primarily represent costs associated with postretirement benefits, product liability and legal costs (mostly asbestos-related) from previously sold businesses. Net cash used in discontinued operating activities for the three months ended March 31, 2018 and 2017 primarily relates to postretirement benefits and asbestos-related matters.

40

Table of Contents

Pensions

Our investment objective in managing defined benefit plan assets is to ensure that all present and future benefit obligations are met as they come due. We seek to achieve this goal while trying to mitigate volatility in plan funded status, contribution and expense by better matching the characteristics of the plan assets to that of the plan liabilities. We use a dynamic approach to asset allocation whereby a plan's allocation to fixed income assets increases as the plan's funded status improves. We monitor plan funded status and asset allocation regularly in addition to investment manager performance.

We monitor the impact of market conditions on our defined benefit plans on a regular basis. None of our defined benefit pension plans have experienced a significant impact on their liquidity due to the volatility in the markets. For further details on pension plan activity, see Note 9 to the condensed consolidated financial statements.

For a further discussion of Liquidity and Capital Resources, refer to Part II, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations," contained in the Company's Annual Report on Form 10-K for the period ended December 31, 2017.

Commitments and Contingencies

We are involved in various litigations, claims and administrative proceedings, including those related to asbestos, environmental, and product liability matters. Amounts recorded for identified contingent liabilities are estimates, which are reviewed periodically and adjusted to reflect additional information when it becomes available. Subject to the uncertainties inherent in estimating future costs for contingent liabilities, except as expressly set forth in Note 19 to the condensed consolidated financial statements, management believes that the liability which may result from these legal matters would not have a material adverse effect on our financial condition, results of operations, liquidity or cash flows.

Critical Accounting Policies

Management's Discussion and Analysis of Financial Condition and Results of Operations are based upon our condensed consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of financial statements in conformity with those accounting principles requires management to use judgments in making estimates and assumptions based on the relevant information available at the end of each period. These estimates and assumptions have a significant effect on reported amounts of assets and liabilities, revenue and expenses, as well as the disclosure of contingent assets and liabilities because they result primarily from the need to make estimates and assumptions on matters that are inherently uncertain. Actual results may differ from estimates.

Management believes there have been no significant policy changes during the three months ended March 31, 2018, to the items that we disclosed as our critical accounting policies in "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our Annual Report on Form 10-K for the year ended December 31, 2017 except for certain policy changes due to the adoption of ASC 606. Refer to Note 2, "Recent Accounting Pronouncements" and Note 11, "Revenue" for additional information related to the adoption of ASC 606.

Recent Accounting Pronouncements

See Note 2 to the Condensed Consolidated Financial Statements for a discussion of recent accounting pronouncements.

Safe Harbor Statement

Certain statements in this report, other than purely historical information, are "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. These forward-looking statements generally are identified by the words "believe," "project," "expect," "anticipate," "estimate," "forecast," "outlook," "intend," "strategy," "plan," "may," "could," "would," "will be," "will continue," "will likely result," or the negative thereof or variations thereon or similar terminology generally intended to identify forward-looking statements.

Forward-looking statements may relate to such matters as projections of revenue, margins, expenses, tax provisions, earnings, cash flows, benefit obligations, share or debt repurchases or other financial items; any statements of the plans, strategies and objectives of management for future operations, including those relating to any statements concerning expected development, performance or market share relating to our products and services; any statements

regarding future economic conditions or our performance; any statements regarding pending investigations, claims or disputes; any statements of expectation or belief; and any statements of assumptions underlying any of the foregoing. These statements are based on currently available information and our current assumptions, expectations and projections about future events. While we believe that our assumptions, expectations and projections are reasonable in view of the currently available information, you are cautioned not to place undue reliance on our forward-looking statements. You are advised to review any further disclosures we make on related subjects in materials we file with or furnish to the SEC. Forward-looking statements speak only as of the date they are made and are not guarantees of

Table of Contents

future performance. They are subject to future events, risks and uncertainties - many of which are beyond our control - as well as potentially inaccurate assumptions, that could cause actual results to differ materially from our expectations and projections. We do not undertake to update any forward-looking statements.

Factors that might affect our forward-looking statements include, among other things:

- overall economic, political and business conditions in the markets in which we operate;
- the demand for our products and services;
- competitive factors in the industries in which we compete;
- changes in tax laws and requirements (including tax rate changes, new tax laws, new and/or revised tax law interpretations and any legislation that may limit or eliminate potential tax benefits resulting from our incorporation in a non-U.S. jurisdiction, such as Ireland);
- the outcome of any litigation, governmental investigations or proceedings;
- the outcome of any income tax audits or settlements;
- interest rate fluctuations and other changes in borrowing costs;
- other capital market conditions, including availability of funding sources;
- currency exchange rate fluctuations, exchange controls and currency devaluations;
- availability of and fluctuations in the prices of key commodities;
- impairment of our goodwill, indefinite-lived intangible assets and/or our long-lived assets;
- climate change, changes in weather patterns, natural disasters and seasonal fluctuations;
- the impact of potential information technology or data security breaches; and
- the strategic acquisition of businesses, product lines and joint ventures;

Some of the significant risks and uncertainties that could cause actual results to differ materially from our expectations and projections are described more fully in the “Risk Factors” section of this Quarterly Report on Form 10-Q and our Annual Report on Form 10-K for the fiscal year ended December 31, 2017. There may also be other factors that have not been anticipated or that are not described in our periodic filings with the SEC, generally because we did not believe them to be significant at the time, which could cause results to differ materially from our expectations.

Item 3 – Quantitative and Qualitative Disclosures about Market Risk

For a discussion of the Company’s exposure to market risk, refer to Part II, Item 7A, “Quantitative and Qualitative Disclosures About Market Risk,” contained in the Company’s Annual Report on Form 10-K for the fiscal year ended December 31, 2017. There has been no significant change in our exposure to market risk as of the first quarter of 2018.

Item 4 – Controls and Procedures

The Company’s management, including its Chief Executive Officer and Chief Financial Officer, have conducted an evaluation of the effectiveness of disclosure controls and procedures (as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the Exchange Act)), as of the end of the period covered by this Quarterly Report on Form 10-Q. Based on that evaluation, the Chief Executive Officer and Chief Financial Officer concluded as of March 31, 2018, that the disclosure controls and procedures are effective in ensuring that all material information required to be filed in this Quarterly Report on Form 10-Q has been recorded, processed, summarized and reported when required and the information is accumulated and communicated to the Company’s management, including its Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

There has been no change in the Company’s internal control over financial reporting that occurred during the first quarter of 2018 that has materially affected, or is reasonably likely to materially affect, the Company’s internal control over financial reporting.

Table of Contents

PART II – OTHER INFORMATION

Item 1 – Legal Proceedings

In the normal course of business, we are involved in a variety of lawsuits, claims and legal proceedings, including commercial and contract disputes, employment matters, product liability claims, asbestos-related claims, environmental liabilities, intellectual property disputes, and tax-related matters. In our opinion, pending legal matters are not expected to have a material adverse impact on our results of operations, financial condition, liquidity or cash flows.

Asbestos-Related Matters

Certain of our wholly-owned subsidiaries and former companies are named as defendants in asbestos-related lawsuits in state and federal courts. In virtually all of the suits, a large number of other companies have also been named as defendants. The vast majority of those claims allege injury caused by exposure to asbestos contained in certain historical products, primarily pumps, boilers and railroad brake shoes. None of our existing or previously-owned businesses were a producer or manufacturer of asbestos.

See also the discussion contained in our Annual Report on Form 10-K for the period ended December 31, 2017 under Part II, Item 7, Management’s Discussion and Analysis of Financial Condition and Results of Operations and also Note 19 to the condensed consolidated financial statements in this Form 10-Q.

Item 1A – Risk Factors

Other than as noted below, there have been no material changes to our risk factors contained in our Annual Report on Form 10-K for the period ended December 31, 2017. For a further discussion of our Risk Factors, refer to the “Risk Factors” discussion contained in our Annual Report on Form 10-K for the period ended December 31, 2017.

Security breaches or disruptions of our technology systems, infrastructure or products could negatively impact our business and financial results.

Our information technology systems, networks and infrastructure and technology embedded in certain of our control products may be subject to cyber attacks and unauthorized security intrusions. It is possible for such vulnerabilities to remain undetected for an extended period. Like other large companies, certain of our information technology systems have been subject to computer viruses, malicious codes, unauthorized access, phishing efforts, denial-of-service attacks and other cyber attacks and we expect to be subject to similar attacks in the future. The methods used to obtain unauthorized access, disable or degrade service, or sabotage systems are constantly changing and evolving. Despite having instituted security policies and business continuity plans, and implementing and regularly reviewing and updating processes and procedures to protect against unauthorized access, the ever-evolving threats mean we must continually evaluate and adapt our systems and processes, and there is no guarantee that they will be adequate to safeguard against all data security breaches or misuses of data. Hardware, software or applications we develop or obtain from third parties may contain defects in design or manufacture or other problems that could unexpectedly result in security breaches or disruptions. Our systems, networks and certain of our control products may also be vulnerable to system damage, malicious attacks from hackers, employee errors or misconduct, viruses, power and utility outages, and other catastrophic events. Any of these incidents could cause significant harm to our business by negatively impacting our business operations, compromising the security of our proprietary information or the personally identifiable data relating to our customers, employees and business partners and exposing us to litigation or other legal actions against us or the imposition of penalties, fines, fees or liabilities. Such events could have a material adverse impact on our results of operations, financial condition and cash flows and could damage our reputation which could adversely affect our business. Our insurance coverage may not be adequate to cover all the costs related to a cybersecurity attack or disruptions resulting from such attacks. Customers are increasingly requiring cybersecurity protections and mandating cybersecurity standards in our products, and we may incur additional costs to comply with such demands. In addition, data privacy and protection laws are evolving and present increasing compliance challenges, which increase our costs, affect our competitiveness and can expose us to substantial fines or other penalties.

Table of Contents

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

Issuer Purchases of Equity Securities

The following table provides information with respect to purchases of our ordinary shares during the first quarter of 2018:

Period	Total number of shares purchased (000's) (a) (b)	Average price paid per share (a) (b)	Total number of shares purchased as part of program (000's) (a)	Approximate dollar value of shares still available to be purchased under the program (\$000's) (a)
January 1 - January 31	13.3	\$ 88.90	—	\$ 900,020
February 1 - February 28	1,405.2	91.11	1,188.2	791,910
March 1 - March 31	1,615.0	87.89	1,614.5	650,017
Total	3,033.5	\$ 89.39	2,802.7	

(a) In February 2017, our Board of Directors authorized the repurchase of up to \$1.5 billion of our ordinary shares under a new share repurchase program upon completion of the prior authorized share repurchase program. Repurchases under the new share repurchase program began in May 2017. Share repurchases are made from time to time in accordance with our capital allocation strategy, subject to market conditions and regulatory requirements. The repurchase program does not have a prescribed expiration date.

(b) We may also reacquire shares outside of the repurchase program from time to time in connection with the surrender of shares to cover taxes on vesting of share based awards. We reacquired 13,305 shares in January, 216,971 shares in February and 478 shares in March in transactions outside of the repurchase programs.

Item 6 – Exhibits

(a) Exhibits

Exhibit No.	Description	Method of Filing
31.1	<u>Certification of Chief Executive Officer Pursuant to Rule 13a-14(a) or Rule 15d-14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.</u>	Filed herewith.
31.2	<u>Certification of Chief Financial Officer Pursuant to Rule 13a-14(a) or Rule 15d-14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.</u>	Filed herewith.
32	<u>Certifications of Chief Executive Officer and Chief Financial Officer Pursuant to Rule 13a-14(b) or Rule 15d-14(b) and 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.</u>	Furnished herewith.
101	The following materials from the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2018, formatted in XBRL (Extensible Business Reporting Language): (i) the Condensed Consolidated Statements of Comprehensive Income, (ii) the Condensed Consolidated Balance Sheets, (iii) the Condensed Consolidated Statement of Cash Flows, and (iv) Notes to Condensed Consolidated Financial Statements.	Filed herewith.

Table of Contents

INGERSOLL-RAND PLC

SIGNATURES

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

INGERSOLL-RAND PLC

(Registrant)

Date: April 25, 2018 /s/ Susan K. Carter

Susan K. Carter, Senior Vice President
and Chief Financial Officer
Principal Financial Officer

Date: April 25, 2018 /s/ Christopher J. Kuehn

Christopher J. Kuehn, Vice President
and Chief Accounting Officer
Principal Accounting Officer