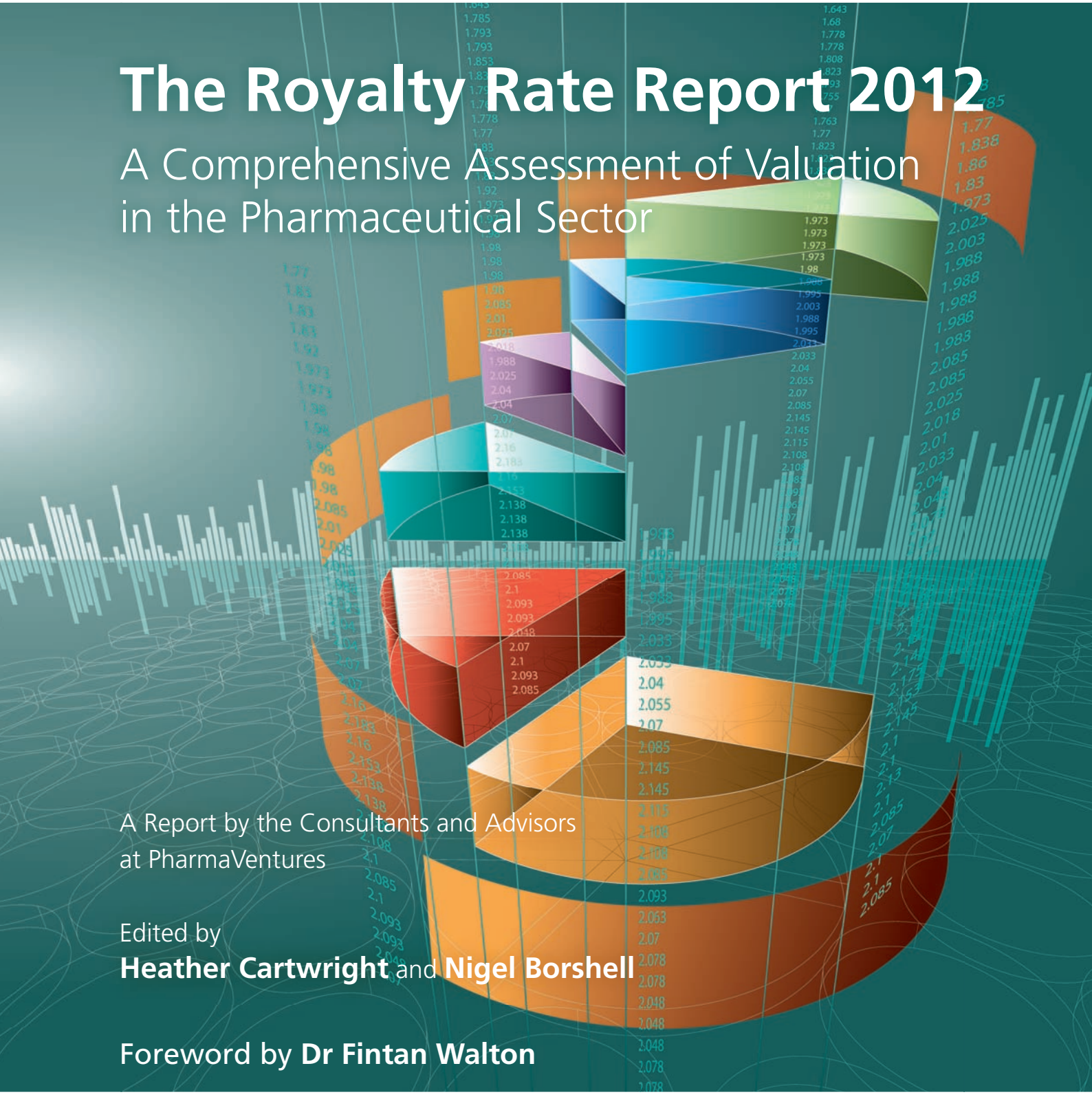
The Royalty Rate Report 2012

A Comprehensive Assessment of Valuation in the Pharmaceutical Sector



A Report by the Consultants and Advisors at PharmaVentures

Edited by
Heather Cartwright and **Nigel Borshell**

Foreword by **Dr Fintan Walton**

PharmaVentures
Experts in deals and alliances

The Royalty Rate Report 2012

A Comprehensive Assessment of Valuation in the Pharmaceutical Sector

A Report by the Consultants and Advisors at PharmaVentures

Edited by Heather Cartwright and Nigel Borshell

Foreword by Dr Fintan Walton

Published by PharmaDeals, Imprint of PharmaVentures Ltd
Florey House, Oxford Science Park, Oxford, OX4 4GP, UK
www.pharmaventures.com

Published by PharmaDeals, Imprint of PharmaVentures Ltd
Florey House, Oxford Science Park, Oxford, OX4 4GP, UK
www.pharmaventures.com

British Library Cataloguing in Publication Data
The Royalty Rate Report 2012:
A Comprehensive Assessment of Valuation in the Pharmaceutical Sector
1. Pharmaceutical industry – Licenses – Great Britain
2. Biotechnology industries – Licenses – Great Britain
3. Pharmaceutical industry – Valuation – Great Britain
4. Biotechnology industries – Valuation – Great Britain
I. Cartwright, Heather; Borshell, Nigel
II. PharmaVentures (Firm)

Published March 2012

ISBN: 978-0-9568270-3-6 Electronic
ISBN: 978-0-9568270-2-9 Print

Materials in this report have been sourced from the PharmaDeals v4 Agreements Database. For detailed information contact PharmaDeals at the address given above.
www.pharmadeals.net

The Royalty Rate Report 2012

A Comprehensive Assessment of Valuation in the Pharmaceutical Sector

The content of the Royalty Rate Report has been formulated by leveraging over 20 years of PharmaVentures' experience in assisting pharmaceutical and biotechnology companies worldwide in all aspects of dealmaking, and in response to valued feedback from our extensive market research. This new report provides:

- More up to date case studies; PharmaVentures highlights the issues and pitfalls so you can avoid them
- Clear guidance on the best methodologies to use when calculating royalty rates to assist with vital decision making
- Opinions and advice from leading industry deal makers on how to calculate royalty rates
- Contextual information – the report explores the questions such as: "What do the royalties mean in terms of value?" and "Where do royalties fit within the deal?"

Published: March 2012

Contents

Figures

Tables

Foreword

The content of this definitive industry reference has been formulated by leveraging over 20 years of PharmaVentures' experience in assisting pharmaceutical and biotechnology companies worldwide in all aspects of dealmaking, and in response to valued feedback from our extensive market research. This report follows on from the publication of previous top selling reports on the topic of royalty rates. With a dearth of royalty rate data in the public domain, the Royalty Rate Report is essential for everyone directly or indirectly involved in deal negotiation, deal structuring or concerned with maximising the value of pharmaceutical product or technology transactions.

The report provides:

- Actual royalty rate data and case histories that are fully updated to reflect changes in the current economic climate and pharmaceutical competitive environment; PharmaVentures highlights the issues and pitfalls around structuring deals so you can avoid them.
- An understanding of how the biotech industry and big pharma differ in their perception of value; the report outlines the factors that determine the value and structure around royalty components from both sides of the fence.
- Insight into the trends of royalty rate payments with expert opinion and advice from industry leaders that is backed up with extensive survey data.
- Best practice for formulating and apportioning value in licensing deals and highlighting hidden risks that can distort royalties. It focuses on methodologies to use when calculating royalty rates to gain the maximum value from your deal.
- Insight into the relationship between deal value and royalties, including alternative royalty structures.
- Guidance on effective benchmarking and how to analyse comparator deals when key financial information is missing.

Dr Fintan Walton
Chief Executive
PharmaVentures

Preface

PharmaVentures has published earlier reports on royalty rates in the pharmaceutical industry: in 2005, 2006, 2007, 2009, 2010 and 2011. The Royalty Rate Report 2012 includes revised figures, tables and several new royalty rate case studies. The Report represents a cornucopia of information about the history of royalties, how they are determined/calculated, insight into recent royalty trends and structuring as well as current royalty thinking.

The Royalty Rate Report 2012 is an essential weapon in the armoury of everyone directly or indirectly involved in royalty rates, value determination, deal structuring, deal negotiation or otherwise concerned with maximising the value of pharmaceutical product and technology transactions. For example, for the budding young licensing executive the Report provides a basis for formulating value, understanding how value is split between licensor and licensee and deriving sensible licensing terms. And for the licensing veteran, if you become stuck in negotiations regarding suitable terms for a transaction, the Report can serve to broaden your perspectives on alternative royalty structures and on other financial terms and conditions that you might not have considered hitherto, thus helping you to reopen discussions and conclude a satisfactory deal. Hence the Report is an indispensable tool for both the novice and the experienced alike.

Moreover, understanding historical and current trends in royalty rates may become increasingly important in today's geopolitical climate. There is increasing concern about the ever rising cost of healthcare including the high cost of many proprietary medicines. Any significant downward pressure on pharmaceutical pricing and reimbursement may well have a knock-on effect on company profits and hence royalty rates and other deal components that licensors and licensees can agree. Understanding royalty rate trends and alternative structures may thus become even more important to maximising the value of pharmaceutical transactions.

The Royalty Rate Report 2012 is thus an essential resource for everyone working in the pharmaceutical sector.

Acknowledgements

Our thanks go to those industry experts who gave us direction for the content, along with those who offered insightful quotes on the many key issues in this critical but often misunderstood feature of modern deal-making. A special mention must also go to the PharmaVentures deal advisory team, whose breadth of expertise, and deal-making insight, provided the professional foundation upon which this report has been built. In particular, we would like to thank Fintan Walton and Dr Tibor Papp for their written contributions and advice and Drs Scott Gorman, Bob Fishleigh and Nigel Davis for their background work upon which much of the report is built. Finally, we would like to thank Anne Vindenes Allen, PharmaDeals Executive Director on the PharmaDeals Team for assistance with the publication that includes a new electronic, online interactive format for the Report.

Introduction

Three Lessons on Royalties You Must Not Ignore

1 Deal making is as much an art as it is a science. If you are tempted to flip through these pages to find the bar charts and data tables holding the 'standard' royalty rates that you need to define your own deal term limits and expectations, then go right ahead. However, if you invest your time in absorbing the content of the report, you will come away with a better understanding of what royalties are, and how and why they are inextricably linked with overall deal value. Context is everything. Without a full understanding of the value in your product and of other contributions to deal value, you cannot determine a suitable royalty rate, no matter how many tables you read.

2 Deal making is as much about 'what you can live with' as it is about meeting specific industry norms. If either one party feels – or both parties feel – that the terms set out do not meet expectations, then there is no rosy future, even if the terms that you propose meet the industry norms. Only by an in-depth analysis of a programme's value, and of the split of that value among deal components (upfront payments, development milestones, sales milestones, royalties) will you be able to answer that 'what can I live with' question. 'Living with' involves envisioning the future in both the short and long term. Can we afford it? It could seem like a blindingly good deal long term froma business development perspective, but the short-term impact on the licensee's bottom line or the company cash flow from the CFO's (and shareholders') perspective might just be the deal breaker.

3 The third lesson is that there is more to be gained through effective knowledge-backed negotiation skills than there is from reading tables of royalty data or calculating value on a spreadsheet. Beyond the obvious impact of prevailing market conditions, actual value is fundamentally a function of a product's net present value enhanced by a licensee's strategic need for that product. Understanding the estimated 'actual' value that a product may have does not automatically translate into knowing how big a share of it you will get. That share comes from a skill-based activity called negotiation, and, unsurprisingly, it is a professional activity that is built on information, not on anecdote.

Royalties, Why Such a Focus?

Over the past 30 years, the pharmaceutical industry has changed out of all recognition. What we take for granted today would seem alien to pharma executives of earlier times. Pipeline productivity, or the lack of it, has become the single greatest driving force in corporate strategic planning. Survival is all about maintaining progress. Without the next big winner waiting in that pipeline, pharma companies are merely carrying today's blockbuster as a giant millstone around their necks. Being successful now is no longer enough: tomorrow is what counts to investors and shareholders alike. That unproductive pipeline can no longer be relied upon to create the follow-on products, and with the demise of branding in pharmaceuticals, today's products are dead in the water once the generic assault is launched upon looming patent expiry. Thirty years ago, drug companies had their 'war chests', their sales 'force' action plans and their marketing 'campaigns', but business philosophy was a-changing. Management speak began to adopt sporting metaphors to define and generate corporate success. Management 'teams', sales 'teams', 'teamwork' and 'team players' populated the burgeoning pharmaceutical industry. Today, the sports metaphor persists, but now the 'players' might be more accurately defined as being the drugs in the pipeline and on the market.

In this context, a company without collaborative strength has no strength at all, regardless of the past achievements of its personnel 'teams'. Just as the successful professional sports clubs have recognised that their own youth programmes and junior team scouts can no longer meet their needs, and that outsourcing the best current and (potential) players through high-value high-cost transactions is the only way to maintain success, so the pharmaceutical industry has similarly looked externally to find the products and technologies that will create the blockbusters or high-value niche products that will complement – or even supplant – its current successes.

Deals have become big business, and with the inherent uncertainties in the pharma development pipeline, deal structures need to reflect a sharing of risk and reward. The typical components of a product licensing deal all show elements of that risk and reward. Upfront money demonstrates the degree of exclusivity, and often reflects an urgency of financial 'need' in one or both parties; milestone payments reflect the achievement in overcoming significant hurdles in the development pipeline as major chunks of value are added to the product; and, eventually, market success is reflected in the royalty component. Upfront money is ephemeral – here today, gone tomorrow – and development milestone payments are the

performance bonuses for the increase in potential; but the royalties are the lasting pension, the annuity reward for the licensor's past achievement (and the enduring testament on the licensee's annual profit and loss statement). Long after the headline deal value has faded from the front page, the royalty flow for those that make it to market will live on.

In 1996, atorvastatin (CI-981, Warner-Lambert) was in Phase III trials for moderate-to-severe hypercholesterolaemia. Warner-Lambert reported that analysts were forecasting peak annual sales of the drug at US$1.5 B. Imagine a deal proposition based on this forecast, and with a 9% royalty rate. One of the negotiators might have said 'Make it 10% and we have a deal'.[1] Peak sales came in at US$12.9 B in 2007, and that 1% sweetener would have been worth an extra US$129 M to the licensor in that year.

OK, so Pfizer's Lipitor® (as atorvastatin is better known) is a special case, but many of today's deals are for Phase II drugs for which a 5% royalty rate is common – in fact, many rates are in the double-digit range, as you will discover in this report. The hope is that many of these drugs will achieve blockbuster status. At US$1 B a year in sales, that 5% is worth US$50 M for every year that the US$1 B sales level is maintained: not an upfront payment, not a milestone, but a year-on-year stream. Deals are definitely big business, and royalties are definitely a big deal! For late development phase candidates, licensing deal royalties can typically comprise 50-80% of the expected Net Present Value (NPV) of the deal from the licensor's perspective: the highest value – but often the lowest visibility profile – in deal-making public relations.

Overview of the Report

The Royalty Rate Report 2012: A Comprehensive Assessment of Valuation in the Pharmaceutical Sector covers new ground in the analysis and interpretation of royalty information. It introduces methods for calculating useful financial data that are missing from the public domain, but are essential for dealmakers in benchmarking, and in determining deal value and its relationship with eventual royalty streams.

Chapter 1 deals with the history of royalties, its relevance to the biotech/pharma arena and the psychology of royalty structures.

In Chapter 2, topics of thought leadership are covered. These include the concept of 'effective royalties' as an aid in the analysis of deal structures, royalty issues in biotechnology, a critique of the oft-quoted 25% rule of

[1] Hyperlipidaemia Therapy: Advances and Commercial Opportunities; Connect Pharma reports (1996).

thumb and its relevance – or lack of relevance – in pharmaceutical deals, and key opinion leader thoughts on the public disclosure of royalty rates.

Chapter 3 covers the practical aspects of royalty calculation, with a focus on benchmarking and expected Net Present Value (eNPV) skills.[2] These tools will give dealmakers a complete understanding of the value intrinsic to their products, and of the relationship between royalties and other deal components.

Market data and current trends are covered in Chapter 4, which looks at actual royalty rates by indication, product type and phase of development. The emerging area of royalty monetisation is covered in detail, along with an analysis of the utility cost of that process.

Chapter 5 looks at current thinking on royalty rates. It starts with a review of the royalties literature, and goes on to investigate the results of pharma royalty market surveys from a critical perspective.

The comprehensive Addendum includes the results of a survey of industry executives conducted by PharmaVentures in 2011 in order to uncover up-to-date information on royalty rates from active dealmakers and their attitudes and expectations with regard to deal making, the full summary of the PharmaVentures 2007 market audit and a listing of royalty reporting deals between 2004 and January 2012.

And throughout the report, you will find case histories, deal analysis and opinion leader comment, all relating to the quest for better and more usable royalty data.

Effective Royalties

Throughout this report, we will be using the concept of 'effective royalties' to analyse and explain various deal scenarios. Royalties are often viewed in isolation from other factors related to intellectual property (IP) licensing. Too much time (and too much energy) is spent searching for meaning within what little royalty evidence exists in the public domain. The truth is more complex than the superficiality of royalty values alone. Without insight into the value of other deal components, such as upfront payments or milestone payments, two seemingly similar royalty percentages may be seen as indicative of a trend or average when, in reality, they are components of deals which might have vastly dissimilar values and structures aside from this one coincidental component.

[2] Expected Net Present Value (eNPV) is widely used in capital budgeting and investment decision making. It means the current worth of future cash flows as discounted backwards with an industry-standard rate of return (or cost of capital), adjusted for the risks that the project faces.

'Effective royalty' is a value concept that allows all those other deal components to be factored into a valuation, which is then expressed as a single component: a royalty. The effective royalty rate answers the question: if there were no other structural components included in this deal, what would the royalty be? In other words, what is the size of the royalty if all the value due to the licensor were incorporated into it? For dealmakers, this can be very valuable, as it allows benchmarking and comparison without the confusion caused by the complexity of reported deal structures.

Effective royalty becomes a theoretical starting point for the value return to an IP licensor, as a function of (future) sales. If all deals were based on marketed products with flat sales, and all licensors sought a regularised cash flow from their licensees' sales revenues, with no upfront lump sum licence fee, then royalty data alone would be comparable. Furthermore, if expressed as a percentage of sales, royalty data would reflect the true shares of value. Knowledge of that profit margin would allow estimation of the share of value between the licensor, via royalty (thus answering the oft-posed question – 'As licensor what can I expect to get?'), and the licensee, via margin minus that royalty (so answering the licensee's equivalent question – 'After paying appropriate royalties, what benefit will the deal bring to my business?').

Deals are rarely as straightforward as that, however. More likely there will be complications with regard to product status. In the years pre-launch: at which clinical development stage is the product? And in the commercial years post-launch: at which stage is the product in the life cycle? Then there will be lump sum deal components (upfront payments, development milestone payments, equity investments, sales milestones), all of which will attempt to confound the derivation of value and the share of it between the parties. The estimation of value is, therefore, a key element in understanding effective royalty and, thereafter, actual royalty rates. In our experience, value in the biotech/pharmaceutical field is best derived by a discounted cash flow methodology (what is tomorrow's money worth today?) incorporating decision tree analysis (what are the chances or risks of reaching specific points of progress on the road to that future flow of tomorrow's money?). When project or product financial data are forecast, then expressed as today's value (NPV), we can consolidate all these data into one single figure, the eNPV. This subject is covered in greater detail in Chapter 3.

Value Calculation

Familiarity with eNPV calculation and utility will be of major advantage in maximising the use of this report, and in extrapolating the lessons learned into future deal analysis.

By combining our 'effective royalty' and 'eNPV' approaches, we can simplify complex deal structures, and we can assess the impact of those lump sum payments (one-off value payments, such as milestones) on the royalty rate (the regularised or repeat-value payments).

The Visualisation of Deals

Here, we will show three types of deal structures diagrammatically.

Our first diagram (*Figure 1.1*) visualises the outputs from eNPV/effective royalty calculations.

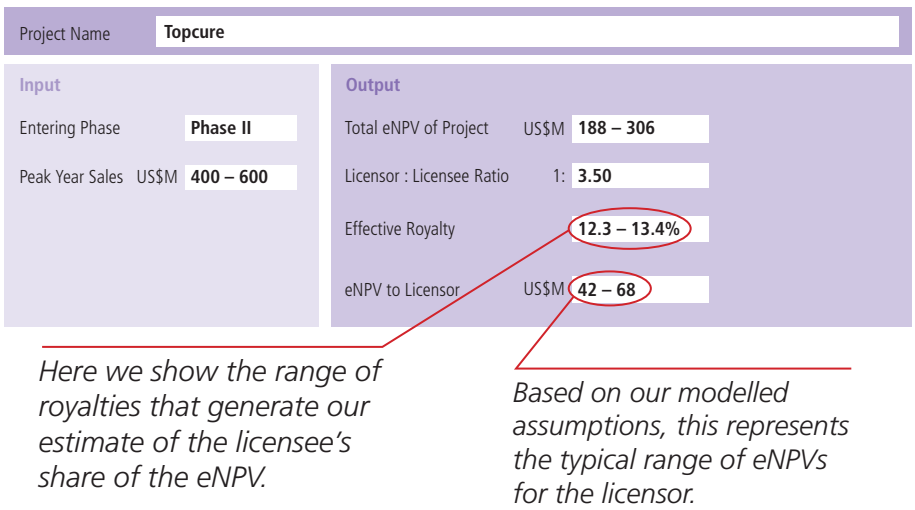


Figure 1.1 – Effective royalty calculation (scenario A).

Figure 1.2 shows an alternative structure for deals where upfront and milestone payments exist, and demonstrates their impact on royalties, thus producing an 'adjusted' royalty.

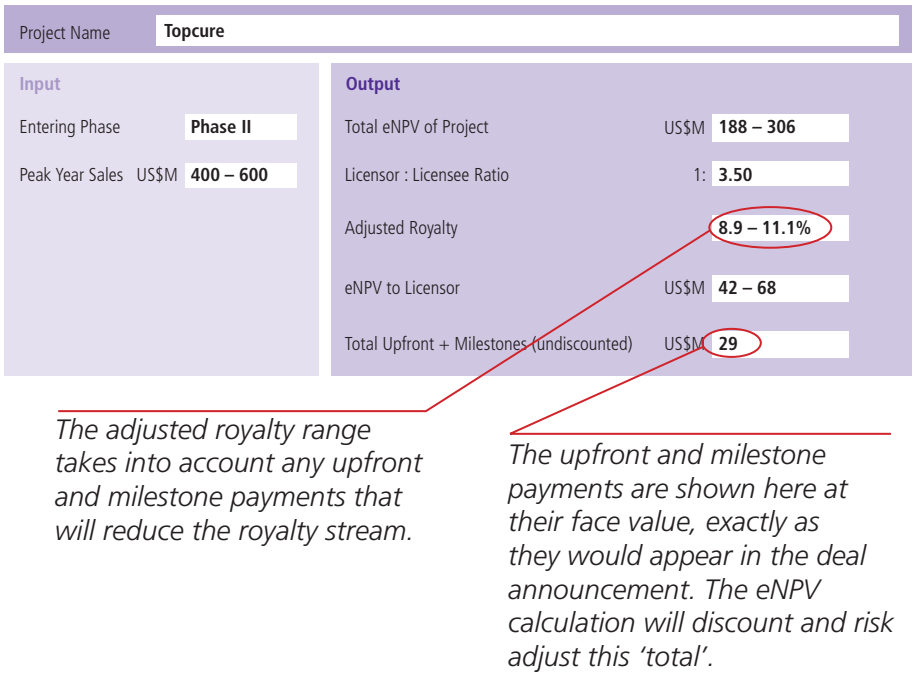


Figure 1.2 – Adjusted royalty calculation (scenario B).

Figure 1.3 provides a third visual summary for a more complex analysis that uses many more specific variables (which are either taken from available data, or modelled/estimated). The diagram depicts the same two scenarios of effective royalty (scenario A) and adjusted royalty (scenario B).

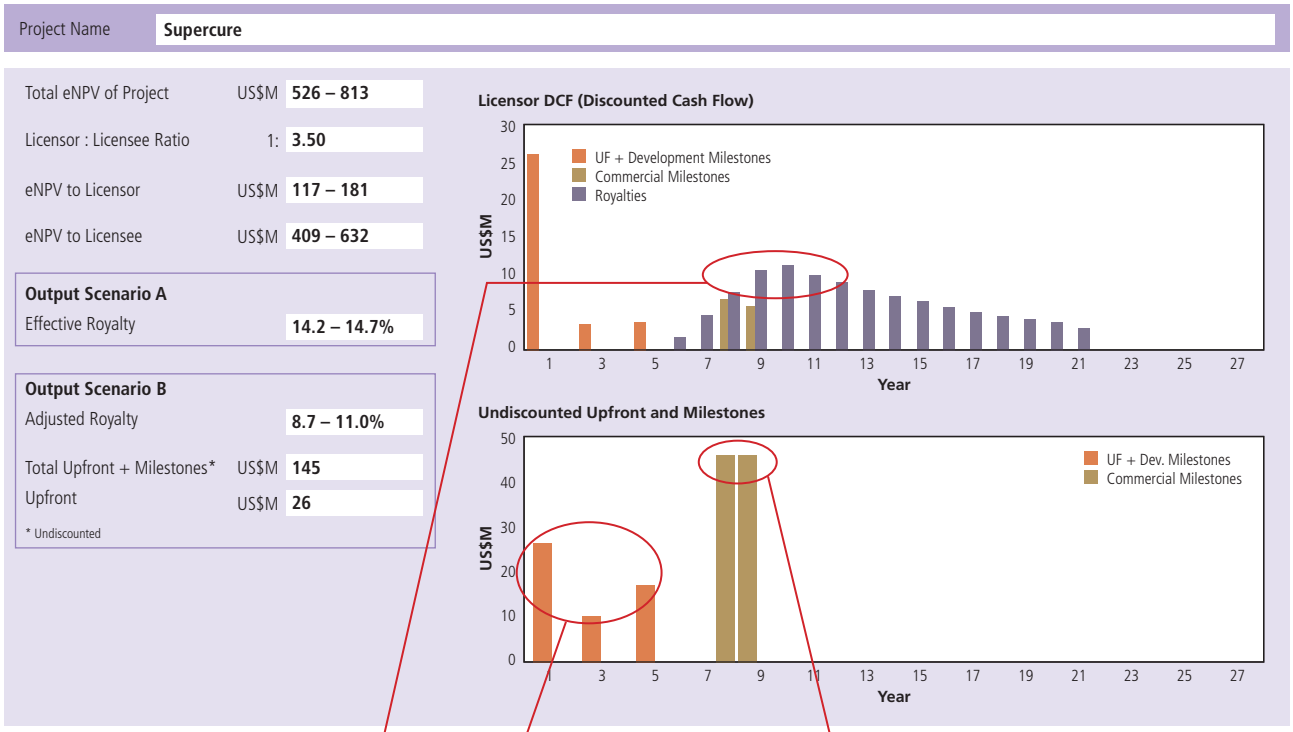


Figure 1.3 – Royalty scenario comparison.

Peak year for sales (corresponding here to risk-adjusted and discounted royalties) are taken from analyst data or, if no data are available, an estimate is based on industry averages adjusted for new indication and territorial factors.

Upfront and development milestones are modelled from industry-average time-scales adjusted, where appropriate, for therapy area and drug form if data are available.

Commercial milestones are modelled in the year corresponding to the sales level 'targets' announced in the deal, or estimated from typical incremental break points if not declared publicly.

When viewing these summaries, it should be remembered at all times that the use of eNPV calculations including decision tree analysis is a valuable comparative method, but does not relate to a future reality, only to our present estimate of value. An analogy might be to value two different sized piles of lottery tickets before the draw, either based on the totals of their face value, or, more accurately, based on total payout divided by ticket numbers; the future reality after the draw will change those values significantly – most will be worthless, while some will have far greater value than their initial price. However, before the draw, the value assessment is based on the best possible available information.

2.7
Overt or Covert?

2.7.1
Thoughts on Royalty Revelation

'… barely more than 1% of all deal-related headlines report actual royalty rates, although these may easily represent most of the value generated by the innovation in the market. Companies are rather reluctant to show these figures as they prefer to reserve some uncertainty about the value, as this could help them negotiate increasingly better terms with any potential subsequent partners. In other words, keeping royalty figures to themselves potentially increases their negotiating power. For these reasons a dealmaker is deprived of perhaps the most crucial information in understanding the full financial returns of a commercialisation programme.'

Head, Pharmaceutical Consultancy, UK[15]

[15] Papp T (2007) *Deal-Making Metrics – Quantitative Trends in Partnering Transactions*. Pharmaceutical Licensing, BTG Touch briefings.

'I think the secrecy aspect is to do with public perceptions. The actual and potential shareholders are happy to see investment in the business but wouldn't be as happy to see the profitability of the business eroded by big royalty payments. We had an internal policy that said don't agree deals with royalty components greater than 10%, don't ask me why it was that specifically, I think part of it was not wanting to come under critical review from our peers in the Pharma industry and analysts out there who might say we had agreed a poor deal for the company. Sometimes we would restructure supply agreements so that some of the value transfer moved from royalty to transfer price so as to keep within the "guidelines" we had.'

Former Business Development Executive, Big Pharma, Europe

'In my experience the pressure to release royalty information would only ever come from the licensor, the biotech or start-up who wanted to show what a good deal they had achieved. Licensees, particularly big Pharma, don't want that information in the public domain as it might be perceived as a negative; there is nothing to gain from it. If it genuinely was a good deal then a quiet chat with the analyst might reveal a fairly good assumption figure without putting the concrete number in the public domain. With the number of deals major Pharma now have to make, they don't see it being conducive to their negotiating position if every piece of the deal puzzle is out there. Licensors' expectations may be raised.'

Former CEO, Biotech, Europe

Chapter 4

Data and Trends

4.1 Disclosure of Royalties: Why the Big Secret?

Pharmaceutical deal announcements focus on headline value, the total of upfront and might-be milestones at their nominal values, yet the major theoretical value component of almost all licensing deals resides in the royalty flow that will come from the deal's *raison d'être* – successful marketing.

A typical deal for a drug in Phase II trials, with peak projected annual sales of US$1.5 B, might have US$10 M upfront, US$400 M in milestones and a 10% royalty rate. Its headline value, therefore, is US$410 M (undiscounted), but sales over 10 years would be likely to total US$15 B, and 10% of that is a far bigger, albeit undiscounted, sum than the headline value. Even once discounted, around 60% of the deal value remains in the royalty component. Deal announcements that do not paint the full deal picture are, therefore, being very selective in exactly what they want to say and to whom.

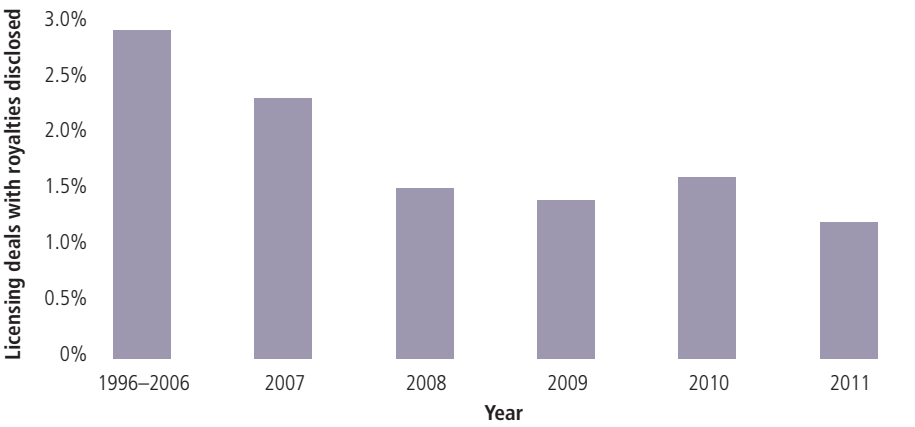


Figure 4.1 – Royalty disclosure rates of licensing deals from mid-1996 to 2011
(Source: PharmaDeals® v4 Agreements database).

Case History

Pfizer's Deal with AVANT for a Clinical-Stage Product

On 16 April 2008, **Pfizer** and **AVANT Immunotherapeutics** entered into an agreement under which Pfizer was to be granted an exclusive worldwide licence (Deal no. 30163) to a therapeutic cancer vaccine candidate, CDX-110, an EGFRvIII vaccine in Phase II/III development for the treatment of glioblastoma multiforme (GBM). The agreement also gave Pfizer exclusive rights to the use of EGFRvIII vaccines in other potential indications. CDX-110, which has been granted both Fast Track and Orphan Drug designations by the US Food and Drug Administration (FDA), is an investigational immunotherapy that targets the tumour-specific molecule EGFRvIII, a functional variant of the epidermal growth factor receptor (EGFR), which is a protein that has been well validated as a target for cancer therapy in certain tumour types. EGFRvIII is only expressed in cancer cells and not in normal tissue, and is a transforming oncogene that can directly contribute to cancer cell growth, as it does in about 40% of GBM tumours. Under the terms of the licensing and development agreement, Pfizer made an upfront payment to AVANT of US$40 M and was also to make a US$10 M equity investment in AVANT. Pfizer was to fund all development costs for these programmes. AVANT is also eligible to receive milestone payments exceeding US$390 M for the successful development and commercialisation of CDX-110 and additional EGFRvIII vaccine products, as well as double-digit royalties on any product sales.

Perhaps the main thing to learn from this exercise is that royalty rates for big pharma licensing deals seem to vary considerably, and that, in the vast majority of cases, averages are no useful predictor of actual rates agreed. The right royalty rate for your deal does not lie in the available royalty databases, or at least not in any superficial summary data.

4.4.1 Pfizer

In the 2007-11 time-frame, top 15 pharma Pfizer's licensing activity showed a significant upturn in 2010 after reaching a low in 2008 (*Figure 4.5*). The company's licensing activity declined slightly in 2011 but not to the levels seen a few years previously. Some 51 of the 81 deals (63%) made by Pfizer in this period were with start-ups, and, perhaps not surprisingly, in the context of the overall 0.62% disclosure rate for big pharma, not one of them involved the disclosure of any hard royalty information.

In April 2008, Pfizer entered into a licence agreement with **AVANT Immunotherapeutics** for a product in Phase II/III. The deal relates to a therapeutic cancer vaccine, CDX-110, and warrants a closer inspection using our eNPV deal analysis approach.

CDX-110 will compete with **Genentech**'s Tarceva® (erlotinib), which achieved US$417 M sales in 2007, and is forecast to hit sales of US$800 M in 2012. With predicted peak sales for CDX-110 of around US$600–800 M and a value split of 2:1 in favour of the licensee, then we would expect to see an effective royalty of around 22%. Owing to the impact of those upfront and milestone payments, this will be significantly reduced. On taking those lump sums into account, the percentage royalty would reduce to an adjusted royalty in the 10–15% (double digit) range – as referred to in the announcement.

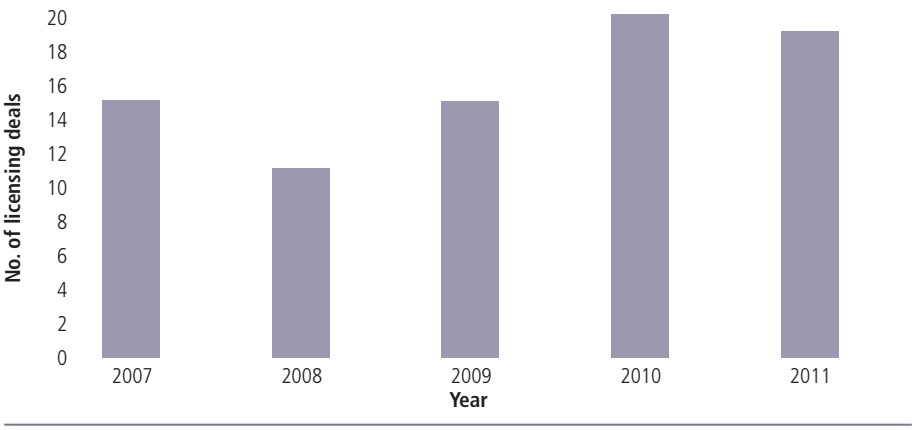


Figure 4.5 – Pfizer's licensing activity in the period 2007–11
(Source: PharmaDeals® v4 Agreements database).

Chapter 5

Industry Perceptions

We have developed our opinions and understanding of royalties from experience and analysis. Little practical information exists in the public domain. Publications are few and far between, and, in our view, often reflect the desire for data rather than interpretation. In this section, we look at some industry papers, surveys and leadership thoughts to see what others have said or done in the field of biotech/pharmaceutical (biopharma) royalties.

5.1 Royalties: A Review of Recent Literature

There follows a review of recent publications relating to royalties in the biopharma licensing area.

Year:	2011
Title:	A Review Of The Global BioPharmaceutical Royalty Rates And Deal Terms Survey: Licensing Executives Society (U.S.A. And Canada), Inc. And Licensing Executives Society International (LESI)
Resource:	*Les Nouvelles*, September 2011
Author(s)/Editor(s):	James A. McCarthy, Ben Bonifant
Publisher:	Licensing Executive Society International

Relevant information

This paper presents a summary of the results of a survey report that was issued in September 2010 and is available exclusively to members of the LES via the LES website. The basic objective of that survey, which was a global expansion of the 2007/2008 BioPharmaceutical Royalty Rate and Deal Terms Survey, was to benchmark important areas of deal-making for licensing professionals.

Addendum

A.1
Royalty Rate Deals Chart: 2004 – January 2012

Table A.1, on the pages following this introductory section, charts royalty-revealing deals since January 2004, sourced from the PharmaDeals® v4 Agreements database. The chart is an updated version of a spreadsheet previously available as part of a report published by PharmaDeals in 2008.

Care should be taken in any interpretation of declared royalty rates. The declared royalty is generally given as a percentage of net sales. However, this is not always the case. Figures of 50% may relate to a particularly high percentage of sales in, for example, a distribution deal for a late-stage or launched product but, occasionally, they relate to a royalty derived from a 50:50 split of profit as in a joint venture. Figures significantly higher than 50% might indicate that a royalty-free tier precedes its attainment, or that the product forms part of a treatment programme where the product is itemised as sold at a set cost by the licensee, but the other treatment components contain the major profit elements of the treatment programme itself. Very high rates are sometimes seen in distribution deals in which the licensee may do little more than warehousing and thus add little value. Watch for royalty rates in deals in which manufacture and or supply forms part of the deal. There may be a transfer price component taking up part of the value otherwise given as pure royalty. Low single-figure royalties sometimes occur with product acquisition deals, and represent a trailing interest in the product, which may have limited time-scales versus patent life, and could be a purchase price deferment.

Where milestones are stated, it is possible that these are not only development milestones but also, perhaps, that they are sales milestones and, therefore, are another name for royalty lump sums. If they are 'sales' milestones then, before calculating their net present value, you will need to check that the milestone payment is based on a sales forecast by the analysts that may never occur. It is not unusual to find milestone payments

agreed for sales levels far in excess of the analysts' forecasts, and because there is no corresponding box on your eNPV spreadsheet to enter them, their value is, therefore, until an analyst says otherwise, zero.

Tiered royalties can confuse the picture, and figures may be declared which represent the start tier, the mid-point estimate, or the maximum. At least one deal in the chart provided here is structured with an MC Escher-like (impossible) structure: is it an up tier, or is it a down tier? It starts at 15% for 20 months, falls to 5% thereafter, but climbs back to 15% based on sales levels. The deal is reported as a 15% royalty, but the reality is more complex, and current sales levels indicate that an 8% rate is the likely ongoing return. On the one hand, the analyst entering the data will interpret 'mid-double digit' as meaning 15%, which may or may not be what the dealmakers understand by the phrase, as double digit can mean a whole lot more (or less);[38] on the other hand, 'mid-teens' is a safer bet to be entered as 15%. Be immediately suspicious of '15%' and '50%'; further research is advised – does the original reference refer to 'double digit', does it refer to profit rather than sales?

The chart presented here (*Table A.1*) is best used to source deal parties for further research and analysis into the significance of the numbers concerned. Company websites, SEC filings and search engines may bring greater insight into the values and deal structures outlined. Finally, remember the effective royalty calculation methodology. With the agreements listed here, a great deal more information is available compared with the norm, including that 'adjusted' royalty rate, so it should be possible to model the effective rates within more accurate limits.

Good luck!

[38] dou·ble-dig·it adj., Being between 10 and 99 percent: The American Heritage® Dictionary of the English Language, Fourth Edition, ©2000 (updated 2003); Houghton Mifflin Company.

A.5
Great Expectations: The 2011 Survey

A.5.1
Introduction to the 2011 Survey

During the first quarter of 2011 PharmaVentures undertook a comprehensive on-line audit in preparation for The Royalty Rate Report 2011. More than any other predetermined factor, it is attitudes and expectations that drive the decisions of dealmakers. We were keen to understand these attitudes and expectations and to determine any changes in the experiences of a broad spectrum of Bio/Pharma business development professionals with regard to royalty rates. This section sets out the results of this recent survey and compares the data with earlier surveys conducted by PharmaVentures to identify trends or shifts. More than 180 respondents completed the survey, almost 70% of whom were from biotech or pharmaceutical companies, with the remainder spread across a variety of related areas such as academia and financial institutions.

We were keen to uncover up-to-date information on royalty rates from active dealmakers, and over 85% of the respondents to our latest survey confirmed their involvement in deal making within the past 5 years, and half of these having experience as both a licensor and a licensee. Those respondents that had been inactive in deal making over this period were filtered out to allow a focus on current dealmakers. Figure A.11 shows the nature of the deal making activity.

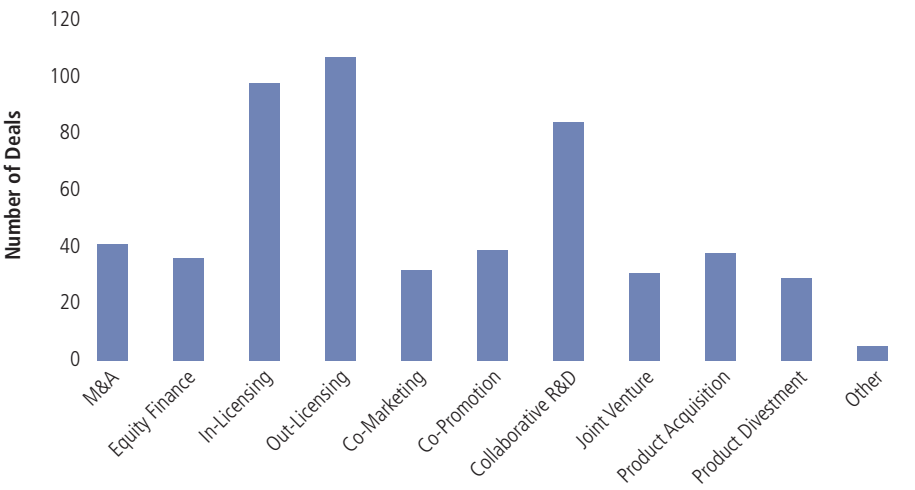


Figure A11 – 'What type of deal were you involved in over the last 5 years?'
Source: PharmaDeals.

The Royalty Rate Report 2012

A Comprehensive Assessment of Valuation in the Pharmaceutical Sector

The content of the Royalty Rate Report has been formulated by leveraging over 20 years of PharmaVentures' experience in assisting pharmaceutical and biotechnology companies worldwide in all aspects of dealmaking, and in response to valued feedback from our extensive market research. This new report provides:

- More up to date case studies; PharmaVentures highlights the issues and pitfalls so you can avoid them
- Clear guidance on the best methodologies to use when calculating royalty rates to assist with vital decision making
- Opinions and advice from leading industry deal makers on how to calculate royalty rates
- Contextual information – the report explores the questions such as: "What do the royalties mean in terms of value?" and "Where do royalties fit within the deal?"

> *If you want to keep your finger on the pulse of our rapidly changing industry then this latest edition provides real insight into the current financial terms being negotiated in 2012.*
>
> **Dr Fintan Walton**
> CEO, PharmaVentures

www.pharmadealsreports.com

PharmaVentures Ltd, Florey House, Oxford Science Park, Oxford OX4 4GP UK
Telephone: +44 (0) 1865 332 700 Fax: +44 (0) 1865 332 737
E-mail: enquiries@pharmaventures.com
www.pharmaventures.com

PharmaVentures
Experts in deals and alliances