



# Analyzing Intellectual Property Royalty Rate Data

# Speaker Biography

Robert Reilly has been a managing director of Willamette Management Associates for over 20 years. Willamette Management Associates provides business valuation, forensic analysis, and financial opinion services for transaction, financing, taxation, bankruptcy, litigation, and planning purposes. Robert frequently provides valuation, economic damages, and intercompany transfer price analyses related to intellectual damages and other intangible assets. Robert has testified in both federal and state courts on numerous occasions with regard to royalty-rate based intellectual property valuations.

Robert holds a BA in economics and an MBA in finance, both from Columbia University. He is a certified public accountant, accredited in business valuation, and certified in financial forensics. He is also a chartered financial analyst, chartered global management accountant, certified management accountant, certified business appraiser, and certified valuation analyst.

Robert has served as member of the AICPA forensic and valuation services executive committee (FVSEC), business valuation committee (BVC), and consulting services executive committee (CSEC). He is an inductee into the AICPA business valuation hall of fame.

Robert is the co-author of 12 books, including *Guide to Intangible Asset Valuation* (published by the AICPA) and *Practical Guide to Bankruptcy Valuation* (published by the American Bankruptcy Institute).

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# Discussion Outline

- Four types of intellectual property
- Three types of intellectual property analyses
- Uses of royalty rates in intellectual property analyses
- Common intellectual property royalty rate sources
- Two types of intellectual property royalty rate data
- Purpose of making royalty rate normalization adjustments
- Common types of normalization adjustments
- Royalty rate analysis illustrative fact set
- Royalty rate analysis illustrative example
- Questions and discussion

# Types of Intellectual Property

- **Royalty rate data are most commonly used in the analysis of intellectual property**
- **There are four types of intellectual property:**
  - Patents
  - Trademarks
  - Copyrights
  - Trade secrets
- **Many license agreements include both intellectual property and related intangible assets**
- **So, consider the bundle of intangible assets included in the license—as well as the bundle of legal rights included in the license**

# Patents and Related Assets

## ■ Common types of patents

- Utility patents
- Design patents
- Plant patents
- Process/method patents

## ■ Related intangible assets

- Technology sharing agreements
- Unpatented proprietary technology
- Technology development rights
- Engineering drawings and designs
- Schematics and technical documentation
- Regulatory approvals and licenses (e.g., FDA approvals, OSHA approvals)

# Trademarks and Related Assets

## ■ Related intellectual property

- Trade names
- Logos
- Service marks
- Service names
- Trade dress

## ■ Related intangible assets

- Brands
- Advertising programs
- Brochures and marketing materials
- Name-related goodwill

# Copyrights and Related Assets

## ■ Copyrights are available for:

- Literary works
- Musical works
- Dramatic works
- Pantomimes and choreographed works
- Pictorial, graphic, or sculptural works
- Motion pictures and audiovisual works
- Sound recordings
- Architectural works
- Computer software (object code and source code)

# Copyrights and Related Assets (cont.)

## ■ Related intangible assets

- Engineering drawings
- Blueprints
- Manuals and procedures
- Training films



# Trade Secrets and Related Assets

## ■ Trade secrets intellectual property

- Customer information
- Books and records
- Product/formulas and recipes
- Procedures and know-how
- Pricing and cost information
- Accounting documentation

## ■ Related intangible assets

- Employee training materials
- Process flow charts
- Plant diagrams and schematics
- Financial plans and projections

# Types of Intellectual Property Analyses

## ■ Royalty rate data are commonly used in the following types of intellectual property analyses:

- Valuation
- Economic damages analysis
- Transfer price analysis

## ■ Royalty rate data and valuation

- Used in the market approach—relief from royalty rate method
- To estimate a defined value for the intellectual property
- Also used in fairness opinion analysis
  - Fairness of proposed intellectual property sale price
  - Fairness of a proposed license royalty rate
  - Fairness of the terms of a proposed transaction

## Types of Intellectual Property Analyses (cont.)

### ■ Royalty rate data and damages analysis

- As a reasonable royalty rate damages measure
- May be used for tort or breach of contract damages

### ■ Royalty rate data and transfer price analysis

- Used in comparable uncontrolled transaction (CUT) method
- International transfers of intangible property
- Interstate transfers of intangible property
- Intercompany transfers between controlled entities with minority ownership interests

# Uses of Royalty Rate Date in Intellectual Property Analyses

## ■ Transactions

- Sale of an intellectual property
- License of an intellectual property
- Transfer of an intellectual property within a controlled entity
- Transfer between a for-profit entity and a not-for-profit entity

## ■ Financings

- Sale/licenseback financing
- DIP or other secured financing collateral

# Uses of Royalty Rate Date in Intellectual Property Analyses (cont.)

## ■ Taxation

- Purchase price allocation
- Basis in a contributed asset
- Charitable contribution
- Gift and estate tax planning and compliance
- Intercompany transfer price (ALP)
- Ad valorem property tax

## ■ Forensic analysis

- Infringement damages
- Breach of contract damages
- Condemnation and eminent domain
- Bankruptcy solvency/insolvency

# Common Royalty Rate Databases

## ■ ktMINE

ktMINE is an interactive intellectual property database that provides direct access to license royalty rates, actual license agreements, and detailed agreement summaries. The database contains over 12,000 intellectual property license agreements. The intellectual property license database is updated frequently. License agreements are searchable by industry, keyword, and various other parameters. The full text of each intellectual property license agreement is available. Available at [www.bvmarketdata.com](http://www.bvmarketdata.com).

# Common Royalty Rate Databases (cont.)

## ■ Royalty Connection

Royalty Connection™ provides online access to intellectual property license royalty rate and other license information on all types of technology, patents, trade secrets, and know-how. The data are aggregated from arm's-length sale/license transactions, litigation settlements, and court-awarded royalty order from 1990 to the present. The intellectual property license database is frequently updated. Users can search by industry, product category, or keyword. The information provided includes the consideration paid for the intellectual property license and any restrictions (such as geographic or exclusivity). Available at [www.royaltyconnection.com](http://www.royaltyconnection.com).

# Common Royalty Rate Databases (cont.)

## ■ RoyaltySource

AUS Consultants offers a database that provides intellectual property license transaction royalty rates. The database can be searched by industry, technology, and/or keyword. The information provided includes the license royalty rates, name of the licensee and the licensor, a description of the intellectual property licensed (or sold, if applicable), the transaction terms, and the original sources of the information provided. Preliminary results are available online and a final report is sent to the subscriber via email. Available at [www.royaltysource.com](http://www.royaltysource.com).



# Common Royalty Rate Databases (cont.)

## ■ RoyaltyStat, LLC

RoyaltyStat is a subscription-based database of intellectual property license royalty rates and license agreements, compiled from Securities and Exchange Commission documents. It is searchable by SIC code or by full text. The results can be viewed online or achieved. The intellectual property transaction database is updated daily. The full text of each intellectual property license agreement in the database is available. Available at [www.royaltystat.com](http://www.royaltystat.com).

# Common Royalty Rate Publications

## ■ Licensing Economic Review

AUS Consultants publishes this monthly newsletter, which contains license royalty rates on selected recent intellectual property transactions. The December issue each year also contains an annual summary of intellectual property license royalty rates by industry.

## ■ License Royalty Rates

Gregory J. Battersby and Charles W. Grimes author this annual book, which is published by Aspen Publishers. This reference tool provides intellectual property license royalty rates for 1,500 products and services in 10 different licensed product categories: art, celebrity, character/entertainment, collegiate, corporate, designer event, music, nonprofit, and sports.

# Common Royalty Rate Publications (cont.)

## ■ Intellectual Property Research Associates

Intellectual Property Research Associates publishes three books that contain information on license royalty rates for patents, trademarks, and copyrights. The books are *Royalty Rates for Trademarks & Copyrights*, *Royalty Rates for Technology*, and *Royalty Rates for Pharmaceuticals & Biotechnology*. These books are updated periodically.

# Defining the Royalty Rate Analysis

- **Before selecting the analysis methodology and specifying the royalty rate search criteria, the analyst should define:**
  - the objective of the intellectual property analysis
  - the bundle of legal rights encompassed in the analysis

# Defining the Royalty Rate Analysis (cont.)

## ■ Common objectives of the analysis include the estimation of:

- a defined value
- an economic damages measure
- an arm's-length price
- a contributory asset charge
- an exchange ratio
- a license agreement royalty rate
- the fairness of a transaction
- the reasonableness of compensation

# Defining the Royalty Rate Analysis (cont.)

## ■ Common considerations related to the bundle of rights include:

- intellectual property type
- term(s) of the transfer
- territory of the transfer
- products/services covered
- ability to sublicense
- ability to modify
- exclusive/nonexclusive use
- ability to assign
- development responsibility
- commercialization responsibility
- maintenance responsibility
- legal responsibility
- registration responsibility
- regulatory responsibility
- minimum sales activity
- minimum promotion activity

# The Royalty Rate Selection Process

## ■ The factors to consider in the royalty rate selection process include:

- the type of intellectual property
- a single property or multiple properties
- de novo or seasoned property
- in process, developed, or commercialized property
- new vs. seasoned territory of licensor/licensee
- new vs. seasoned products/services covered
- length of the license term
- license term start and stop dates
- sale, license, or other type of transfer
- transfer between independent parties
- type of license compensation:
  - royalty rate
  - profit split
  - cost plus
- type of royalty rate formula:
  - % of revenue
  - % of gross profit
  - % of net profit

# Typical Royalty Rate Data Analysts Need

- **Analysts typically need to consider two types of royalty rate data:**
  - actual compensation data (raw data)
  - normalization adjustment data
- **The base rate is the contractual compensation specified in the license agreement. These data include the “noise” of the actual royalty consideration arrangements.**
- **The adjustment data are the license-specific terms needed to “normalize” CUT royalty arrangements to make them more comparable to the subject transaction.**
- **So, analysts need to read the CUT license agreements.**



# License-Specific “Noise” Often Encountered in CUT Data

- CUT license agreements often include terms that should be analyzed and adjusted in order to make the CUTs more comparable to the subject intellectual property analysis.
- These normalization adjustments typically reduce the “noise” in what appears to be a wide range of aberrational and unrelated royalty rate data.

# License-Specific “Noise” Often Encountered in CUT Data (cont.)

## ■ Some of the common normalization adjustments that analysts may look for:

- upfront fixed payments
- milestone fixed payments
- minimum/maximum fixed payments
- litigation settlements
- intercompany transfers
- equity as part of license
- short/long license terms
- IP sale not a license
- royalty rate not % of sales
- royalty on sublicense income
- multiple IP in the license
- product sale/distribution agreements
- main/complementary products
- relation to other agreements

# Other Factors That Affect License Royalty Rates

- In addition to license-specific “noise” terms, industry and other general factors affect royalty rate levels.
- Analysts should consider these general factors that affect royalty rates when analyzing CUT data with respect to a subject intellectual property:
  - State of the economy
  - Size of the subject industry
  - Growth of the subject industry
  - Profitability of the subject industry
  - Market position of subject IP
  - Market position of CUT IP
  - Position in life cycle of subject IP
  - Position in life cycle of CUT IP

# Three Procedures to Manage “Noise” in Royalty Rate Data

## ■ Analysts generally use one of three procedures to manage the noise of anomalous royalty rate data:

- Eliminate the anomalous observations from the selected royalty rate data
- Quantitatively adjust for the impact of the normalization factors
- Qualitatively assess the impact of the normalization factors
- In addition to these three procedures, analysts use central tendency analyses that minimize the impact of the anomalous observations:
  - Median royalty rate
  - Trimmed mean royalty rate
  - Interquartile range of royalty rates

# Procedures to Manage “Noise” in Royalty Rate Data (cont.)

- It is generally appropriate for analysts to eliminate from consideration those anomalous observations that cannot be normalized or adjusted
- It is generally inappropriate for analysts to eliminate from consideration those anomalous observations just because they fall outside of the typical range (i.e., because they are not Goldilocks observations)

# Royalty Rate Analysis Illustrative Example

- The analyst's assignment is to estimate a fair, arm's-length royalty rate for the use of a pharmaceutical industry patent and related know-how.
- The royalty rate could be used for a valuation, damages measure, transfer price, or other analysis.
- The subject patent relates to a molecular compound. The biochemical compound was developed to cure the debilitating disease called midgititis. Victims of midgititis are unusually short of stature and, often, socially awkward. The symptoms of this disease are often mistaken for the symptoms of pygmy syndrome or dwarfism.

# Royalty Rate Analysis Illustrative Example (cont.)

- Although the molecular compound is patented and the biochemistry is promising, no pharmaceutical product is yet commercialized. No FDA drug approval is issued. Clinical trials are being conducted.
- The patented compound is called Colossus. If a prescription drug product is ever approved by the FDA, it would be called Statuesque.

# Illustrative Royalty Rate Search Criteria

- SIC code 2834, pharmaceuticals industry
- Technology intangibles and manufacturing/process intangibles
- Either the licensor or the licensee is a U.S. company
- No territory restrictions
- No restrictions on the type of the agreement
- No restrictions on the license start date or stop date



# Initial Royalty Rate Search Results

- **ktMINE – initial search identified 72 license agreements**
- **RoyaltySource – requested 30 randomly selected license agreements**
- **The identified license royalty rates ranged from 2% of product revenue to 100% of sublicense revenue**
- **Numerous royalty rates were expressed as:**
  - % of gross profits
  - % of net profits
  - \$ per kilogram
  - % of manufacturing costs
  - \$ per time period
  - fixed \$ amount
- **How does the analyst make sense of over 100 divergent royalty rate data points?**

# Consideration of Type of License Agreement

## ■ Our illustrative example is common in the pharmaceutical industry:

- Company A performs pure research and creates a patented compound
- The patented compound may (or may not) be effective in treating various diseases
- Company A retains the rights to develop compound into a drug product for a specific therapy (e.g., cancer cure)
- Company A licenses use/development/commercialization rights for all other therapies to other domestic or foreign companies
- The licensee companies try to develop cures for other diseases (e.g., heart disease) and pay Company A a royalty based on milestones and/or the ultimate product sales
- The licensee companies assume both technological risk and business risk
- The licensor company wants to develop a cure for cancer—the license royalty income is an added economic benefit

# Types of License Agreements in the Commercial Databases

■ These types of agreements may be eliminated (from consideration), adjusted (quantitatively normalized), or assessed (qualitatively):

- territory production/manufacturing agreements
- territory distribution agreements
- sublicense agreements
- trademark license agreements
- intercompany transfer price agreements
- non-patent technology licenses
- asset sale agreements
- joint development agreements
- joint venture agreements
- access to product data and library of research
- IP infringement settlement agreements
- stockholder litigation settlement agreements
- technical assistance agreements

# Types of Products Included in Databases

■ **These products may be eliminated (from consideration), adjusted (quantitatively normalized), or assessed (qualitatively) :**

- generic drugs
- cosmetic products
- non-human drugs
- medical and surgical devices
- radiation delivery systems
- over the counter products
- dietary supplement products
- nonprescription skin care products
- multiple pharmaceutical products (product portfolios)
- multiple patents and know-how (IP portfolios)

# Types of License Compensation in Databases

## ■ These license consideration arrangements may be eliminated (from consideration), adjusted (normalized), or assessed (qualitatively):

- profit split % of gross profits
- profit split % of net profits
- profit split % of product profits
- % of sublicense revenue/income
- % of manufacturing costs
- % of total costs
- % of exit event consideration
- % of FMV assigned
- \$ per volume/weight

## ■ Some of these consideration arrangements may be useful in the application of profit split analysis methods or of cost plus analysis methods

## ■ Some of these consideration arrangements may be converted into a percent of revenue royalty rate

# Examples of the Elimination of Royalty Rate Noise

Licensors	Licensee	License Rights	Consideration
Cypress Pharmaceuticals	Pediatrix	Right to distribute Granisol	\$1,000/mo.
Allergan	Nektar Therapeutics	Collaboration agreement to develop Levadex	50% of profits/loss
Arius Pharmaceuticals	Biodelivery Sciences	Rights to BEMA patent and to develop products	\$375,000/quarter
Epicept Corp.	Epicept GmbH	Cooperation agreement to develop Caplene for AML remission treatment	\$2,000/day/employee
Columbia Laboratories	Scientelle	Right to use patent to develop diabetes drug for licensor	150% of development expenses—to licensee
Pharmos Corp.	Reperio Pharmaceuticals	Product development agreement—right to use the patent to develop small molecular drugs	50% of FMV of an exit event

# Examples of the Quantitative Adjustment (Normalization) of Royalty Rate Noise

Licensor	Licensee	License Rights	Consideration	Adjustment
Glycomed	Paringenix	Patent rights to develop variations of named products	100% sublicense revenue	8% of revenue [a]
Keryx Biopharma	Torii Pharma	Right to use patent and technology to manufacture products to treat inflammatory cutaneous disorders	15% of mftg cost	7.5% of revenue [b]
Deponed	Solvany Pharma	Right to use patent and technology to develop and manufacture pain medicine delivery device	15% of sales	7.5% of sales [c]
Impax Labs	Medicis Pharma	Right to use patents, know-how, and technology to develop products for treatment of oral acne	25% of gross profit	10% of sales [d]
Columbia Labs	Coventry Pharma	Rights to patents and patent applications to develop small modular immune-pharmaceutical products	50% of pretax profit	7.5% of sales [e]
DVSA Pharma	River's Edge Pharma	Rights to use patents and technology to develop and manufacture products for stated gastro-intestinal disease	\$5,000,000 plus 25% of gross profit	10% of sales [f]

## Explanation:

[a] Assume that 100% of sublicense revenue becomes pretax margin; 8% is the pretax margin in this industry.

[b] Manufacturing cost = about 50% of revenue in this industry.

[c] As a rule of thumb, medical devices generally generate about twice the royalty rate as medicines.

[d] Gross profit margin is approximately equal to 40% of sales in this industry.

[e] Pretax margin is approximately 15% of sales in this industry.

[f] Gross profit margin is approximately 40% of sales; the \$5,000,000 upfront payment settles a patent infringement lawsuit between the licensor and the licensee.

# Industry Data Sources for Royalty Rate Adjustments

## ■ Publicly traded company research sources:

- Bloomberg — Bloomberg is a fully searchable online database that provides financial information on nearly all active and inactive US publicly traded companies and active and inactive international companies. Companies may be searched by industry sectors or by SIC codes. Detailed financial information is available. The information is updated frequently. More information is available at [www.bloomberg.com/professional/](http://www.bloomberg.com/professional/).
- MergentOnline — MergentOnline is a fully searchable online database that provides financial information on over 15,000 active and inactive US publicly traded companies and approximately 20,000 active and inactive international companies. Companies are listed by SIC codes and by North American Industry Classification System (NAICS) codes. More information is available at [www.mergentonline.com](http://www.mergentonline.com).



# Industry Data Sources for Royalty Rate Adjustments (cont.)

- S&P Capital IQ – S&P Capital IQ contains detailed financial and textual information on approximately 79,000 publicly traded companies (both domestic and foreign). The information is derived from documents filed with the SEC and similar global securities regulators (as well as proprietary research). The database may be searched by SIC code or by S&P's industry classifications. Detailed financial information is available. The information is updated frequently. More information is available at [www.capitaliq.com](http://www.capitaliq.com).
- Thompson ONE – Thompson ONE is a fully searchable database that provides financial information on approximately 52,000 public companies over 1 million private companies. Companies may be searched by GICS codes or SIC codes. Detailed financial information is available. The information is updated frequently. More information is available at [www.thomsonreuters.com](http://www.thomsonreuters.com)

# Industry Data Sources for Royalty Rate Adjustments (cont.)

## ■ Industry Financial Research Sources:

- Occupational Safety & Health Administration – The US Department of Labor, Occupational Safety & Health Administration website provides SIC codes. Codes can be searched by keyword, or the SIC code “tree” can be viewed and browsed.
- US Census Bureau – The US Census Bureau NAICS website provides a searchable database of NAICS codes. NAICS codes are a more recent classification system than SIC codes. Therefore, they can be better for newer industries, such as some high-tech industries.

# Industry Data Sources for Royalty Rate Adjustments (cont.)

- FirstResearch – FirstResearch is an industry research database that was developed to provide information for sales people. It provides an overview, valuation pricing multiples, growth rates, and information on how to analyze a company in a particular industry. Information is updated quarterly. It is available at [www.firstresearch.com](http://www.firstresearch.com).
- IBISWorld – IBISWorld is one of the largest independent publishers of US industry research. Research includes information on major companies in the industry, growth rates, key financial data, and outlook for the industries. The research covers approximately 700 different market segments. Some international reports are also available. Information is updated quarterly for most industries and less frequently for some. It is available at [www.ibisworld.com](http://www.ibisworld.com) and also through other database aggregators.

# Industry Data Sources for Royalty Rate Adjustments (cont.)

- S&P Industry Surveys – S&P Industry Surveys are available on approximately 50 industry sectors. The reports provide global industry information as well as information on the US industries. Major companies are discussed, and detailed information on the recent past and the outlook for the future are provided. A glossary of specialized terms is provided. Also, comparable financial information on major companies in the industry is provided. The information is updated twice a year. These surveys are available from various sources, including S&P NetAdvantage and Alacra.com.
- ABI/Inform – Articles from US and international general interest and trade publications may be searched. This database is available at most libraries and through database aggregators such as Alacra.com.

# Industry Data Sources for Royalty Rate Adjustments (cont.)

- Bloomberg Industries – This component of the Bloomberg database provides industry data, interactive charting, and written analysis from a team of industry experts. Contact information for each industry expert is provided so that an analyst can follow up with questions if needed. More information is available at [www.bloomberg.com/professional/](http://www.bloomberg.com/professional/).
- MarketResearch.com – This database provides access to industry and market research reports from many different sources. It provides information on products, trends, regions, demographics, industries, and companies from its collection of over 700 research publishers. More information is available at [www.marketresearch.com](http://www.marketresearch.com).

# Industry Data Sources for Royalty Rate Adjustments (cont.)

- S&P Capital IQ – This database provides access to analyst research as well as some market research reports. Capital IQ uses S&P industry classifications. These classifications can be helpful in grouping companies in comparable industries. In addition, comparative ratio information is available. More information is available at [www.capitaliq.com](http://www.capitaliq.com).
- Thomson One – This database provides access to analyst research and market research reports. More information is available at [www.thomsonreuters.com](http://www.thomsonreuters.com).
- Westlaw – Articles from US and international general interest and trade publications may be searched. Westlaw also provides access to the Investext analyst research database. More information is available at [www.westlaw.com](http://www.westlaw.com).

# Industry Data Sources for Royalty Rate Adjustments (cont.)

- *Almanac of Financial Ratios*, CCH, Inc. – This resource is available in print and e-book formats. The book includes 50 comparative performance indicators and covers all of North America using NAICS data. The information is calculated and derived from the latest available IRS data on nearly 5 million companies. It includes companies in nearly 200 industries. The book is issued annually. More information is available at [www.cchgroup.com](http://www.cchgroup.com).
- *Annual Statement Studies: Financial Ratio Benchmarks* and eStatement Studies database, The Risk Management Association – Both the book and the online database contain financial statement ratios and common-size balance sheet and income statement line items, arrayed by asset and sales size. Six different asset and sales size categories are presented. The book and database cover over 700 industries, sorted by NAICS codes. The book is issued annually. More information is available at [www.rmahq.org](http://www.rmahq.org).

# Industry Data Sources for Royalty Rate Adjustments (cont.)

- *Ibbotson Cost of Capital*, Morningstar – This annual book contains five separate measures of cost of equity, weighted average cost of capital, statistics on sales and profitability, capitalization, beta, equity valuation multiples, enterprise valuation multiples, financial ratios, equity returns, and capital structure. It is organized by SIC code. Quarterly updates are available online at [ccrc.morningstar.com/](http://ccrc.morningstar.com/)
- *IRS Corporate Ratios*, Schonfeld & Associates, Inc. – This book includes 76 financial ratios that are based on the most recently available income statement and balance sheet data compiled by the IRS. The data focuses on the comparison of financial ratios for companies with and without net income. The contrast between profitable and unprofitable companies highlights which ratios are critical in the achievement of financial success. The book is issued annually. More information is available at [www.saibooks.com](http://www.saibooks.com).



# Examples of Qualitative Assessment of Royalty Rate Noise

<u>Licensor</u>	<u>Licensee</u>	<u>License Rights</u>	<u>Consideration</u>	<u>Term</u>	<u>Analyst's Assessment</u>
Hoffman-La Roche	Meda AB	Rights to patents, trademarks, and all IP, inventory, contracts, manufacturing and sales—asset purchase agreement	10% of sales	6 years	less than 10% of sales [a]
Combinatorix	Fovea Pharma	Collaboration agreement—right to collaborate to develop ophthalmic medicine to treat BOE diseases	4% of sales	10 years	more than 4% of sales [b]
CIBA Vision	Novartis Pharma	Right to use technology to develop a benzoporphyrin derivative mono acid ring for use in cataract surgery	20% of sales	10 years	less than 20% of sales [c]
Coventry Pharma	Watson Pharma	Right to use patent, trademark, copyrights, regulatory filings, and promotional materials to develop Progesterone products	10% of sales	until last IP expires	less than 10% of sales [d]
PDL Biopharma	Alexion Pharma	Right to use PDL antibody patent family in the development and manufacture of other licensed products	4% of sales	term of other licenses	more than 4% of sales [e]

Explanation:

[a] Licensee is paying for a going concern business.

[b] Both licensor and licensee have to contribute to the development of any new drug.

[c] Medical devices extract higher royalty rates; also gives licensee the right to buy materials from the licensor at cost.

[d] Includes multiple IP and the right to operate a business.

[e] Patent can only be used with other licensed products, that also generate license royalty income to the licensor.

# Examples of Selected CUT Royalty Rate Data for Colossus Analysis

Licensor	Licensee	License Rights	Term	Consideration
Cominatrix	Alpha Plan	Right to use patent and clinical research to adopt Prednisporin to treat glaucoma	6 years	8% of sales
Cosmo Pharma	Santorus	Right to use patents and know-how to develop products containing Budesonide to treat ulcerative colitis	6 years	7% of sales
Eli Lilly	United Therapeutics	Right to use technology to develop and commercialize prescription product for treatment of pulmonary hypertension	20 years	6% of sales [a]
Baxter International	Eleisin Pharma	Right to patent and technology to improve Glufosfamide related to treatment of cancer	9 years	8% of sales
Auxilium Pharma	Biospecifics	Right to use BTC patents in development of next generation of products to treat Peyronie's Disease	8 years	8.5% of sales

Explanation:

[a] Royalty rate may be low due to long license period.

# Subject Patent Royalty Rate Conclusion

- What is the market-derived royalty rate for a use license of the Colossus biochemical compound patent that can be used to develop the Statuesque prescription drug product to treat midgititis?
- The analyst eliminated royalty rate data that did not present meaningful license consideration
- The analyst adjusted royalty rate data to indicate an adjusted range of royalty rates of 7.5% to 10% of sales
  - mean royalty rate – 8.4%
  - median royalty rate – 8%
  - mode royalty rate – 7.5%

# Subject Patent Royalty Rate Conclusion (cont.)

- **The analyst assessed royalty rate data that indicated a greater than/less than royalty rate range as follows:**
  - royalty rate greater than 4%
  - royalty rate less than 20%
  - modes – greater than 4%, less than 10%
- **The analyst selected CUT royalty rate data that indicated a range of 6% to 8.5% of sales and:**
  - royalty rate mean – 7.5%
  - royalty rate median 8%
  - royalty rate mode 8%
- **Based on these empirical data, the analyst select a royalty rate of 8% of sales for the Colossus patent**
- **This empirically-derived royalty rate conclusion can be used for valuation, economic damages, and transfer price analysis purposes**

# Analyst Caveats in the Use of License Royalty Rate Data

- Use several IP license databases, if possible
- Know what intellectual property you are analyzing, what industry you are analyzing, and what bundle of legal rights you are analyzing
- Print and read each license agreement that may provide empirical royalty rate data
- Examine the license agreement for terms and conditions that will justify elimination, adjustment, or assessment—or reliance on the license royalty rate

# Analyst Caveats in the Use of License Royalty Rate Data (cont.)

## ■ The commercial license databases include documents other than arm's-length license agreements:

- asset purchase agreements
- intercompany transfer price agreements
- product sale, manufacturing, distribution agreements
- joint venture, collaboration, etc. agreements

## ■ There are various types of license compensation formula that are not particularly useful to a royalty rate analysis

- \$ per unit
- \$ per period
- equity as payment
- % of gross profit or net profit

# Analyst Caveats in the Use of License Royalty Rate Data (cont.)

- Be prepared to eliminate, adjust, and assess license royalty rate data in order to extract meaningful IP pricing metrics
- Real estate appraisers regularly eliminate, adjust, and assess empirical sales data in performing real estate appraisals
- Valuation analysts regularly eliminate, adjust, and assess guideline company pricing multiple data in performing market approach business valuations
- The procedure to eliminate, adjust, and assess empirical data should be a well-used tool in the valuation analyst's toolbox

# Summary and Conclusion

- There are a lot of noise in intellectual property license royalty rate raw data
- Analysts can effectively use these empirical data to perform IP valuation, damages, and transfer price analyses
- Analysts may use the “eliminate, adjust, and assess” procedures to reach a reasonable range of royalty rates—and a final, supportable royalty rate conclusion
- Analysts should not use the Goldilocks procedure:
  - select a predetermined royalty rate that is “just right”
  - then eliminate, adjust, and assess the data to justify the predetermined “just right” royalty rate



## Summary and Conclusion (cont.)

- Analysts should be prepared to explain all selections, rejections, or adjustments of available royalty rate data
- If the license market for the subject IP is efficient, then the analyst should be able to modulate the noise in the royalty rate data—and to reach a reasonable range of royalty rates and a supportable royalty rate conclusion
- Questions and discussion