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Agenda

- Intellectual Property Valuation Basics
- Unique Considerations for Trade Secrets and Know-How
- Real-World Examples
- The Bottom Line
Purpose of the valuation

- Transactional (buy/sell, licensing, M&A, joint venture, etc.)
- Compliance (tax, financial reporting)
- Strategic decision-making
- Bankruptcy
- Raising capital (debt and equity)
- Litigation
- Others
Intellectual Property Valuation Basics

- Standard of value
  - Fair Market Value
  - Investment Value
  - Fair Value
  - Arm’s Length Standard
  - Defined by statute, contract, case law

- Premise of value
  - Going concern
  - Liquidation

- Valuation date
Intellectual Property Valuation Basics

- Valuation approaches
  - Cost Approach
  - Market Approach
  - Income Approach
Cost Approach

Definition: a general way of determining a value indication of an individual asset by quantifying the amount of money required to replace the future service capability of that asset.

Theoretical basis:

- Buyer’s perspective: not willing to pay more to use property than the cost to replace the property.
- Seller’s perspective: receive a return of the costs to develop and a return on the costs to develop
Does not reflect earnings potential

Often no true replacement asset available (IP is unique)

Often irrelevant to buyer/licensee

Potentially relevant applications

- Embryonic/early-stage technology for which market applications and/or business models cannot yet be reliably defined

- Technology that is narrow in scope (i.e., easy to design around)
  - Copyrighted software
  - Little known trademarks
Market Approach

Definition: a general way of determining a value indication by using one or more methods that compare the subject intellectual property asset to similar assets that have been sold.

Theoretical basis: No party would be willing to pay more than others have paid for similar assets (i.e., the “market price”); the value of an asset can be estimated by observing the price/value of comparable assets.
Market Approach observations

- IP is unique
- Limited number of comparable transactions are available
  - Very few buy/sell transactions
  - More licensing transactions
- Adjustments to inexact comps are challenging to quantify
- Difficult to compare licensing deals with many terms and multiples forms of value being shared
- Often very helpful to establish reasonable ranges, particularly for transactions
Income Approach

Definition: a general way of determining a value indication using one or more methods that convert anticipated economic benefits (i.e., future incremental cash flows attributable to the IP) into a present single amount.

Theoretical basis: a buyer in an arm’s-length transaction would be willing to pay an IP owner its expected economic gain from using the IP.
Income Approach observations

- Most commonly relied-upon approach of the three
- Typically the most burdensome valuation approach to implement
  - Length, amount, and risk of incremental cash flows
  - Many assumptions (relevant business model(s), market size, market share, pricing, cost structure, taxes, discount rate, etc., etc.)
- Trying to predict the future is always challenging
  - Quality of results depends heavily on quality of inputs
  - If IP is very early stage, relevant business models and markets may be difficult to identify
Determining a value

Consider all three approaches and try to implement more than one approach

- Relevance, available data

Value conclusion

- Each valuation approach/methodology that is implemented provides a distinct “indication of value”
- Try to rely on more than one approach/method
- Weigh results based on facts and circumstances

Use reasonableness tests as a check
There is no single correct value

Whoever does the better analysis has the better answer
Unique Considerations for Trade Secrets and Know-How

- Defining the assets
  - Trade secrets
    - Must be kept secret
      - Limit dissemination (“need to know”)
      - Physical and/or electronic security
    - Provides economic value to owner
    - No formal registration but potential legal protections available
  - Know-how
    - Typically not codified
    - No formal legal protections
Unique Considerations for Trade Secrets and Know-How

Cost Approach

- May be hard to track historical costs or identify replacement costs
  - May be difficult to specifically define the assets

Market Approach

- May be hard to identify comps
  - May be difficult to identify the comparable assets (no patent document to study)
  - Relatively few public transactions where 1) trade secrets and know-how are traded without patents or 2) royalty rates for trade secrets and know-how are identified separately from patents
Unique Considerations for Trade Secrets and Know-How

- Income Approach
  - Cash flow amount
    - May be hard to measure benefits
  - Cash flow period
    - No legal limit (longer life)
    - Ability to observe in the end product (shorter life)
  - Risk assessment related to legal protections
    - Trade secrets
      - No registration (higher risk)
      - Can be independently invented (i.e., no guaranteed exclusivity) (higher risk)
    - Know-how: no legal protection (higher risk)
SRR was hired by an automotive supplier to value patents and know-how associated with 1) exterior trim systems and 2) structural and safety systems for an intercompany transfer for a tax reorganization.

### Real-World Examples: Automotive Parts

<table>
<thead>
<tr>
<th>Asset Type</th>
<th>Number of Agreements</th>
<th>Mean Royalty Rate</th>
<th>Median Royalty Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patents</td>
<td>7</td>
<td>5.7%</td>
<td>5.0%</td>
</tr>
<tr>
<td>Know-How</td>
<td>23</td>
<td>3.7%</td>
<td>3.0%</td>
</tr>
<tr>
<td><strong>Difference</strong></td>
<td><strong>-54%</strong></td>
<td><strong>-67%</strong></td>
<td></td>
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</table>
Real-World Examples: Orthopedic Implants

- For many years, orthopedic companies have been paying design surgeons royalties for contributing know-how to the design of orthopedic implants
- Term of royalty payments for know-how is limited because, typically, the know-how is observable in the end product
  - Typically 5-7 years*
- Rates for know-know are typically less than for patented inventions
  - Rates for know-how rarely exceed 2% of sales and typically range from 0.5% to 1.5%*
  - Alternatively, patented technologies typically yield royalty rates in the 5% range for a longer term (perhaps through the expiration of the patent)**

** SRR research and analysis from searches of the RoyaltySource intellectual property licensing database, 2008.
Real-World Examples: Various Industries


### Table 3. Median Royalty Rates for Bare Patent and Patent Plus Know-How Licenses

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<tr>
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<tbody>
<tr>
<td>All High-tech and Biotech</td>
<td>4.5% (n = 570)</td>
<td>3.0% (n = 343)</td>
<td>1.5%</td>
</tr>
<tr>
<td>Electromedical Apparatus (MED)</td>
<td>5.0% (n = 25)</td>
<td>2.0% (n = 23)</td>
<td>3.0%</td>
</tr>
<tr>
<td>Biological Products (PHR)</td>
<td>5.0% (n = 98)</td>
<td>3.0% (n = 65)</td>
<td>2.0%</td>
</tr>
<tr>
<td>Surgical &amp; Medical Instr. (MED)</td>
<td>5.0% (n = 69)</td>
<td>3.6% (n = 40)</td>
<td>1.4%</td>
</tr>
<tr>
<td>Semiconductors (ELE)</td>
<td>3.5% (n = 31)</td>
<td>2.4% (n = 10)</td>
<td>1.1%</td>
</tr>
<tr>
<td>Pharmaceutical Preparations (PHR)</td>
<td>4.0% (n = 156)</td>
<td>3.0% (n = 70)</td>
<td>1.0%</td>
</tr>
<tr>
<td>Diagnostic Substances (PHR)</td>
<td>4.0% (n = 40)</td>
<td>3.5% (n = 34)</td>
<td>0.5%</td>
</tr>
<tr>
<td>Physical &amp; Biological Research (PHR)</td>
<td>3.5% (n = 39)</td>
<td>3.0% (n = 19)</td>
<td>0.5%</td>
</tr>
</tbody>
</table>

SIC 3845 Electromedical & Electrotherapeutic Apparatus
SIC 2836 Biological Products (No Diagnostic Substances)
SIC 3841 Surgical & Medical Instruments & Apparatus
SIC 3674 Semiconductors & Related Devices

SIC 2834 Pharmaceutical Preparations
SIC 2835 In Vitro & In Vivo Diagnostic Substances
SIC 8731 Services-Commercial Physical & Biological Research
Valuation of trade secrets and know-how require the use of the same approaches and methods as other intellectual property but unique considerations must be taken into account.

In many cases trade secrets and know-how are relatively less valuable than patented technology but each valuation is unique and relies on the particular facts and circumstances associated with the relevant financial/market, legal, and technical issues associated with the ownership and use of the assets.

In some cases, trade secrets and know-how may be the most valuable assets owned by an organization.
Questions?

Thank You!