Comparables for Patent Transaction Valuation

Patent Valuation Conference
Berkeley Center for Law & Technology
February 6, 2008
– Agenda –

  • Applications for the Findings
  • Trends Moving Forward
  • Questions
Let’s begin by discussing how we performed our study, and what we found

- **Our Study** –

  - Document verifiable transactions to establish a record of price levels
  - Ignore terminated, suspended, and in-process transactions
  - Opaque market limits perspective
  - Interview 30+ industry decision makers

**Methodology**

**Summary Statistics**
- Determined price levels
  - Overall (2002-2008)
  - 2008

**Trends**
- 2 key dynamics driving change
- 4 key trends
Our database of 309 deals collected between 2002-2008 indicates a median price per family of $112,000 and a mean price of $383,000

— Summary Results —

<table>
<thead>
<tr>
<th>Factor</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Transactions</td>
<td>309</td>
</tr>
<tr>
<td>Total Gross Deal Proceeds</td>
<td>$573 m</td>
</tr>
<tr>
<td>Maximum Cost / US Issued + WW</td>
<td>$12 m</td>
</tr>
<tr>
<td>Mean Cost / US Issued + WW</td>
<td>$383 k</td>
</tr>
<tr>
<td>Median Cost / US Issued + WW</td>
<td>$112 k</td>
</tr>
</tbody>
</table>

Source: ThinkFire transaction database, 2002-2008

Recall that these statistics describe the mean and median for ALL KNOWN CLOSED TRANSACTIONS

For best results, we should understand how our planned transaction(s) fit into the set
Price levels have risen year over year

– Increasing Price Levels: 2006-2008 –
A simple statistical analysis of the transactions contained in the database finds the following distribution of prices

— Valuation Implications/ Family —

<table>
<thead>
<tr>
<th>Percentile</th>
<th>Overall Price / Family (M USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>90%</td>
<td>$0.681</td>
</tr>
<tr>
<td>80%</td>
<td>$0.330</td>
</tr>
<tr>
<td>70%</td>
<td>$0.250</td>
</tr>
<tr>
<td>60%</td>
<td>$0.192</td>
</tr>
<tr>
<td>50%</td>
<td>$0.164</td>
</tr>
<tr>
<td>40%</td>
<td>$0.110</td>
</tr>
<tr>
<td>30%</td>
<td>$0.110</td>
</tr>
<tr>
<td>20%</td>
<td>$0.064</td>
</tr>
<tr>
<td>10%</td>
<td>$0.041</td>
</tr>
</tbody>
</table>

These figures can be used as multiples:
• Measure of relative valuation to an underlying financial asset
• Allows for relative comparisons

We can attempt to compare any specific transaction(s) vs. the overall set of closed transactions
• Type of technology
• Size of relevant markets
• Etc.

Source: ThinkFire Analysis
We can see that price levels rose year-over-year across the board, with the largest increase among the “preferred” lots.

– 2008: Rising Prices Across the Board –

<table>
<thead>
<tr>
<th>Price/Issue US Patent ($US)</th>
<th>&quot;Elite&quot; Lots</th>
<th>&quot;Preferred&quot; Lots</th>
<th>&quot;Common&quot; Lots</th>
</tr>
</thead>
<tbody>
<tr>
<td>90th</td>
<td>$0.400</td>
<td>$0.200</td>
<td>$0.000</td>
</tr>
<tr>
<td>80th</td>
<td>$0.500</td>
<td>$0.300</td>
<td>$0.100</td>
</tr>
<tr>
<td>70th</td>
<td>$0.600</td>
<td>$0.400</td>
<td>$0.200</td>
</tr>
<tr>
<td>60th</td>
<td>$0.600</td>
<td>$0.500</td>
<td>$0.300</td>
</tr>
<tr>
<td>50th</td>
<td>$0.700</td>
<td>$0.600</td>
<td>$0.400</td>
</tr>
<tr>
<td>40th</td>
<td>$0.700</td>
<td>$0.700</td>
<td>$0.500</td>
</tr>
<tr>
<td>30th</td>
<td>$0.700</td>
<td>$0.800</td>
<td>$0.600</td>
</tr>
<tr>
<td>20th</td>
<td>$0.700</td>
<td>$0.900</td>
<td>$0.700</td>
</tr>
<tr>
<td>10th</td>
<td>$0.700</td>
<td>$1.000</td>
<td>$0.800</td>
</tr>
</tbody>
</table>

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• **Applications for the Findings**

• Trends Moving Forward

• Questions
Those engaged in the divestiture or acquisition of patents require improved guidance in evaluating bids and asks, and in budgeting for acquisition and forecasting divestitures.

**The Challenge**

- What is an appropriate price for a particular patent lot we are selling?
- What is an appropriate bid for a particular patent lot we are selling?
- How much should we budget for a set of acquisitions?
- How do we forecast sales for our divestiture business?

There is a need for guidance in addition to or beyond that provided by typical valuation models based upon Discounted Cash Flow (DCF) analysis:

- Helpful in *grounding DCF models in “reality”* to better triangulate on target prices
- Useful in *assessing entire acquisition or divestiture businesses* before detailed analysis of individual patents and DCF are possible
Comparables are NOT a substitute for DCF, but rather a complement when both are available, and an alternative option when DCF is not practical.

– DCF and Comparables- Perhaps the 2 Most Popular Valuation Techniques –

DCF-based Enforcement Potential

- Measures the “inherent” value of the asset, accounting for the unique attributes of each lot
- Requires detailed technical and legal analysis of each patent, followed by development of business case
- Heavily dependent upon analyst judgments and assumptions, e.g. royalty rates, probability, risk

Comparable Transaction-based Approaches

- Accounts for observed market price levels and buyer/seller behaviors
- Requires knowledge of historical transactions
- Dependent upon relevance of historical transactions to planned transaction(s)

Note that ThinkFire studies historically have shown a gap of 88-98% between DCF approaches and actual market prices.
To successfully use comparables analysis as part of a valuation methodology, one must have an appropriate set of transaction data upon which to build

– The Process –

1. Determine comparable transaction attributes:
   • Intrinsic attributes: Technology, related products/services
   • Formal attributes: Quantity, foreign filings, type of asset(s)
   • Market attributes: Timing, Supply/demand in the marketplace, circumstances of relevant buyers/sellers, payment specifications, timing

2. Collect transaction data with relevant attributes

3. Analyze transaction data to select comparable transactions
   – Normalize for items not expected to be part of the normal course of business
   – An art not a science- use judgment

4. Use selected comparables to derive implied valuation range
To successfully use comparables analysis as part of a valuation methodology, one must have an appropriate set of transaction data upon which to build

**The Data**

- To use *individual deal comparables*:
  - A few sufficiently comparable individual transactions
  - A *sufficient understanding of the circumstances* involved in each comparable

- To use *aggregate deal comparables*:
  - A *database* containing a significant quantity of individual transactions
  - An understanding of *how your transaction(s) relate* to those in the database

With these ingredients, one can then consider how one’s planned transaction(s) fit into the context of the candidate comparable transactions

- *How is your deal(s) similar* to the candidates?
- *How is your deal(s) different*?
– Agenda –

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• Questions
We see two dynamics driving the future of the patent transaction market

– Two Key Dynamics –

Market Evolution

Economic Recession
These two dynamics drive four key trends going forward

– Four Key Trends Going Forward –

1. Evolution Driven Divergence
2. Changing Players
3. Buyer’s Market
4. The Continued Pre-Eminence of Intellectual Ventures
We see the industry players separating into four classes based upon differing levels of sophistication.

**Diverging Types of Firms**

- **Sophisticated**
  - Focused on performing significant transactions frequently
  - Committed, pro-active, building capabilities
  - “We did a few deals in 2008 and had a number in our plan, and we will build on that and make divestitures a much bigger part of our business plan for 2009.”
  - Senior IP Executive, Large High Technology Company

- **Evolving**
  - Reactive; occasionally pursue transactions
  - “I take them seriously- I always think ‘this could be the one’.”
  - Senior IP Executive, Large High Technology Company

- **Ad Hoc**
  - Out of the market
Moving forward, firms must weigh “build vs. buy” options

– *Build vs. Buy* –

- How Will You Leverage the Market?
  - Acquisitions
  - Divestitures

- Are Potential Partners Available?
  - Aligned with your objectives?
  - Appropriate capabilities?
  - Viable economics?

- Build vs. Buy?
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• A Simple Study of Patent Brokerage Pricing Levels, 2002-2008
• Applications for the Findings
• Trends Moving Forward

• Questions
– Please Feel Free to Contact Us With Any Questions –

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