



## Patent Valuation

Valuing your patent: assessing the market value of a patent under various scenarios.

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## Defining "Value"

- Price a ready, willing and able buyer is prepared to pay, in cash money, to acquire the patent today.
- Don't confuse patent value with the value of a business.
  - Value of a company driven by numerous factors. See "Valuation" slideshow (#15).
  - Patents and I.P. held by the company can have some bearing, but alone do not determine the value of a business.
- Note: no buyers for many patents.



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## Patent is an Exclusive Right

- A right to exclude.
  - Injunction preventing future infringement.
  - Reasonable royalty compensates for past infringement.
- Not a right to use.
  - Elements of the patented invention may infringe other patents.



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## Patents are Weapons of Litigation

- Patent wars drive patent trading.
- Common scenario:
  - Competitor "A" files patent infringement suit against competitor "B". "B" then buys patents to use in counter-claim against "A".
- Patents reading on large corporations with deep pockets can be used as strategic weapons.
  - Most valuable when all elements of a patent claim are practiced in a product shipping in volume in the U.S. market.



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## Which Patent Assets?

- U.S. issued patents.
  - Right to assert in U.S. Federal court.
- U.S. pending applications.
  - Too speculative to value until claims allowed.
  - Often bundled with issued U.S. patents.
- Patents issued outside U.S.
  - Assertion framework.
  - Degree of royalties/court awards.



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## Market Forces—Supply & Demand

- Economic forces of supply and demand have an impact on the price of a good.
  - Patent is unique so supply is constrained.
  - Demand also constrained. Usually number of buyers is either 1 or 0.
- Maximal value achieved when engage with several competing buyers.
  - More buyers supports a higher price.
  - Must have buyers bidding within same timeframe.
  - Auction fever can take hold.
- Patent auction experience.
  - Vast majority of lots are unsold.
  - Buyers reluctant to bid in public.



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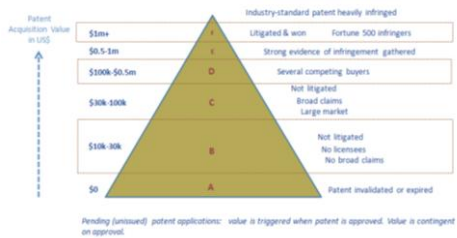
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## Value Summary



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## Valuation Scenarios

### 1. Patent with Unknown Licensing Potential.

- Infringement not investigated.

### 2. Patent with Existing Licensees.

- License agreements contracted and royalties flowing.
- Buyer collects royalties.

### 3. Patent with Identified Potential Licensees.

- Infringing products identified and evidence of use of the patented invention.



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## Patent with Existing Licensees

- Licensing agreements are contracted.
- Buyer collects licensing revenues.
- Net present value of licensing royalties.
- Discount rate of 10-20% applied.
  - Reflects the fact that patents are often invalidated & risk that licensee will default or payments will not materialize.
- Deductions:
  - Cost of running licensing program and collecting royalties.
  - Profit margin (incentive) for buyer.



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## Patent w/ Identified Potential Licensees

- Claims charts provide preliminary evidence of infringement.
- Value determined by modeling a potential licensing program.
  - Assume licensee refuses to pay without legal action.
  - Calculate cost of lawsuit.
  - Calculate recovery if win lawsuit.
  - Discount back to value today—net present value.
  - Discount rate of 20-40% p.a.
- Deductions:
  - Reduce NPV to allow profit for buyer.



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## Patent w/ Unknown Licensing Potential

- Potential licensees not yet identified.
- Value based on average trading price of similar patents.
- Several factors considered:
  1. Validity.
  2. Claims—strength.
  3. Title encumbrances.
  4. Age—life remaining.
  5. Age—relative.
  6. Forward citations.
  7. Patent construction.
  8. Etc.



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## Valuation Factor: Validity & Maintenance Status

- Battle-tested patents most valued.
  - When litigated, upheld and won.
- Issued patents can be invalidated by the courts, by the patent office, or expire through failure to pay maintenance fees.
  - May be invalidated by discovery of prior art or other reason.
  - Sometimes revived if expired through lack of maintenance fee payment. But carries scar tissue.
- Effect on value: terminal.
  - Invalid or unmaintained patent is worth nothing.



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## Valuation Factor: Claims

- Define the scope of the patent. Most important.
  - Do the claims read on products?
  - Can the claims be circumvented?
  - Both method and apparatus?
- Effect on value: Readily enforceable claims add value.
  - Usually, short claims are most prized.
  - A patent with two good claims is more valuable than with one.
- Relative impact on value: Very high.
  - Without strong claims, the patent has little value.



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## Valuation Factor: Title Encumbrances

- Encumbrances to clear title:
  - Existing licenses, where license revenue is not going to buyer.
  - Patent ownership disputes.
- Effect on value: reduce value.
- Relative impact on value: severe.



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## Valuation Factor: Age—Life Remaining

- A patent approaching expiration loses value in the final few years.
  - Unless substantial historical infringement—as past royalties can be collected.
  - U.S. patents, term is 20 years from filing date.
- Effect on value: becomes more severe as expiration approaches.
- Note: child patent can terminate with parent.
  - Terminal disclaimers often hidden in the USPTO filings, but force early expiration of child.



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## Valuation Factor: Age—Relative

- A patent early in the field can have broader claims that later-filed patents.
  - Later patents forced to fill gaps left by earlier patents.
  - Earlier patents often have broader claims. Later patents often have narrower claims.
- Effect on value: can be significant.
  - Depends on the scope and strength of the claims.



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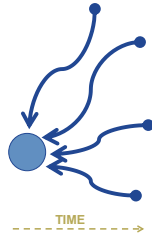
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## Valuation Factor: Forward Citations

- Newer patents acknowledge this patent as prior art.
  - Show invention is relevant.
- Effect on value: value increases with number of forward citations.
- Relative impact on value: impact can be moderate or significant, depending on reason for citation.
  - If claims are reasons for citation, impact is significant.
  - If description/specifications are reason for citation, then impact can be moderate.
  - Impact often over-estimated.



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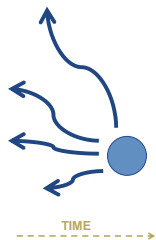
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## Valuation Factor: Backward Citations

- Acknowledge prior-art identified in previously-filed patents.
  - New patent cites old patents and distinguishes from them.
- Effect on value: can show that inventor researched the market and conducted some diligence before finalizing prosecution of the patent.
  - Helps determine novelty.
- Relative impact on value: not significant.
  - Reduces chance of patent being invalidated when prior art discovered.



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## Valuation Factor: International Family

- U.S. patent sold with a family of international counterparts warrants a higher price than U.S. patent alone.
  - Generally, trading takes place in U.S. patents with international counterparts included.
- Effect on value: international counterparts add 20-50% value to the U.S. patent.
  - Depends on the countries covered. Large markets with strong patent assertion legal framework are more interesting.



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## Valuation Factor: U.S. Family

- A U.S. patent sold in a bundle with similar patents, and child applications can add value.
  - Chance of a single patent being invalidated is much higher than having a whole portfolio invalidated.
- Effect on value: value of a the U.S. patent can be increased 20-50%.
  - Sometimes buyers are more interested in children (especially live applications) than their parent patents.



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## Valuation Factor: Patent Construction

- A poorly constructed patent may be more readily invalidated, or more difficult to assert against infringers.
- Best practices can be checked:
  - Claims terms described in specifications.
  - Figures explain and clarify the written words.
- Impact on value: moderate to low.
  - If the writing is unambiguous, even to a lawyer, the clarification in specifications and figures may have little impact.



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## Value vs. Sellability

- Vast majority of patents are not sellable, even with the most effective sales efforts.
  - If no infringers now, or on horizon, buyers reluctant to acquire.
- Patents that are most sellable are found in:
  - Areas of active patent wars.
  - Patent classes where assignments are common.
- Value must be considered in conjunction with sellability and current market interest.



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