

VALUATION AND DUE DILIGENCE IN ACQUIRING INTELLECTUAL ASSETS

- Measuring the Flagpole -

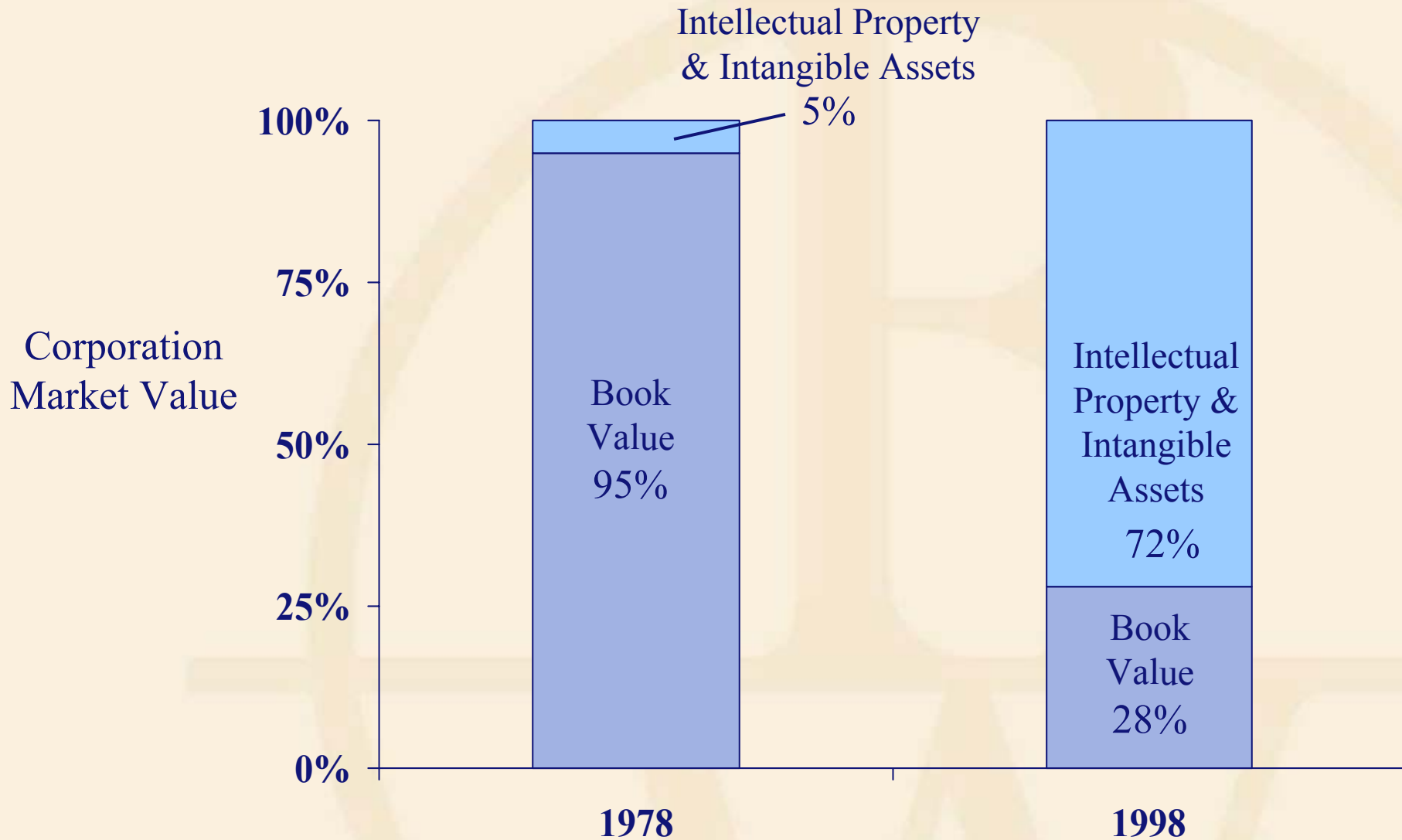
Joseph J. Berghammer
Banner & Witcoff, Ltd.
Chicago, IL



DUE DILIGENCE

- Assessment and Minimization of Risk
- Valuation

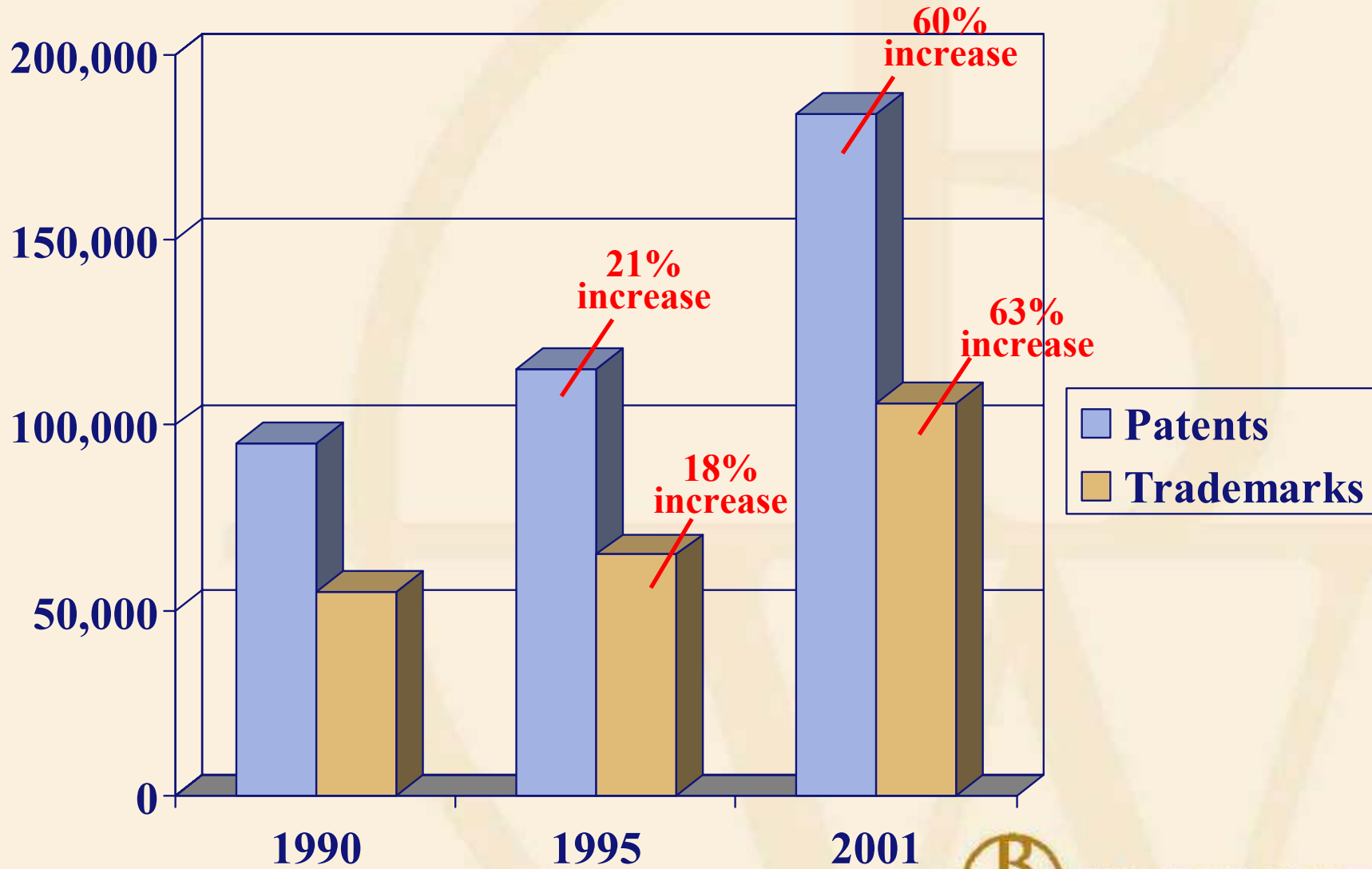




Book Value and Market Value of Sample of 3,500 Corporations



U.S. Patents & Trademarks Granted Per Year



Total Market Value 44.7 Billion

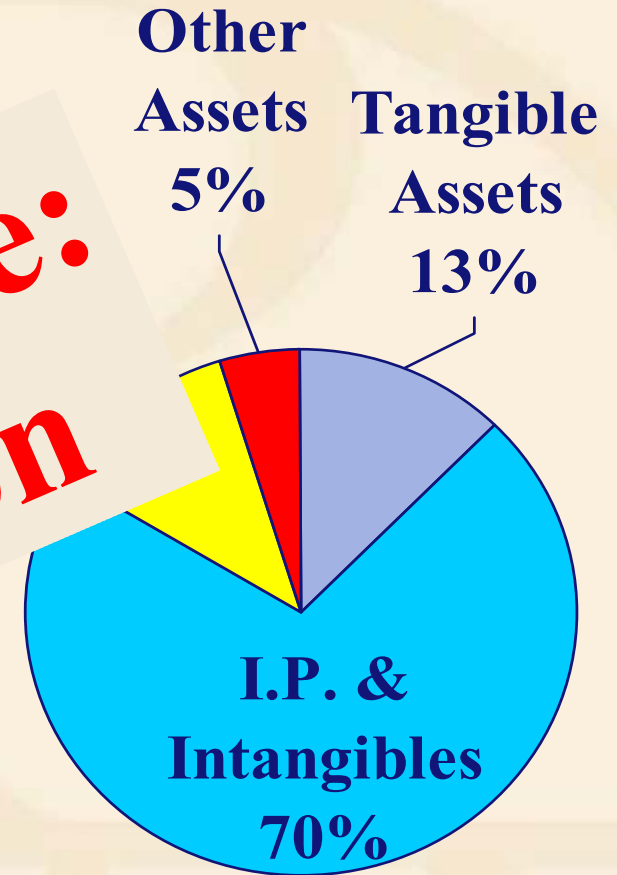
Monetary Assets 5.2 Billion

Tangible Assets 5.6 Billion

Other Assets

**Intellectual Property
& Intangibles**

**Missing Value:
\$30.6 Billion**



Market Value Intellectual Property & Intangibles 31.8 Billion

Balance Sheet Value for Intangibles 1.2 Billion

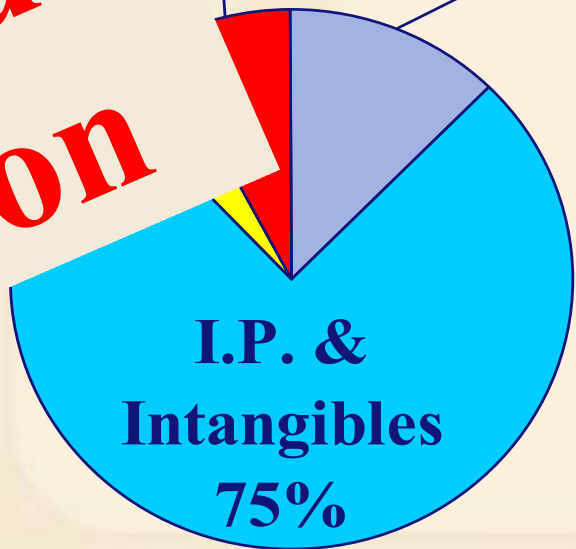
3M Company Intellectual Property & Intangible Assets Valuation

Total Market Value	65.6 Billion
Monetary Assets	2.8 Billion
Tangible Assets	8.0 Billion
Other Assets	1.5 Billion

**Intellectual
& Intangible**

**Missing Value:
\$44.7 Billion**

Other Assets 8%
Tangible Assets 13%



<i>Market Value Intellectual Property & Intangibles</i>	<i>49.5 Billion</i>
<i>Balance Sheet Value for Intangibles</i>	<i>4.8 Billion</i>

PepsiCo, Inc.
Intellectual Property & Intangible Assets Valuation



Total Market Value 99.6 Billion

Monetary Assets 7.4 Billion

Tangible Assets 16.5 Billion

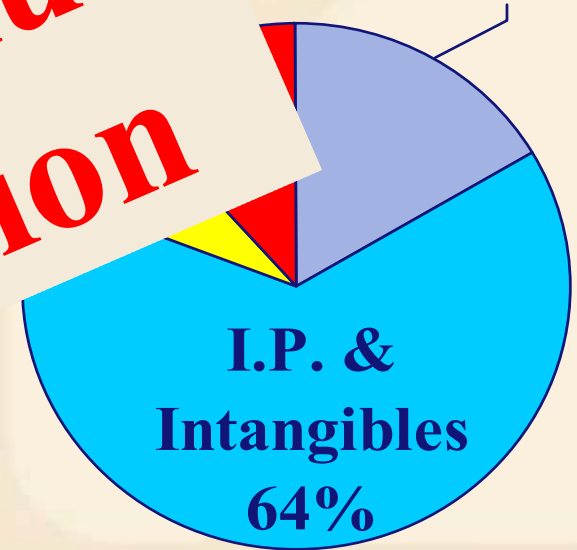
Other Assets 15.2 Billion

Intellectual Property & Intangibles

Other Assets

Tangible Assets
17%

**Missing Value:
\$56.4 Billion**



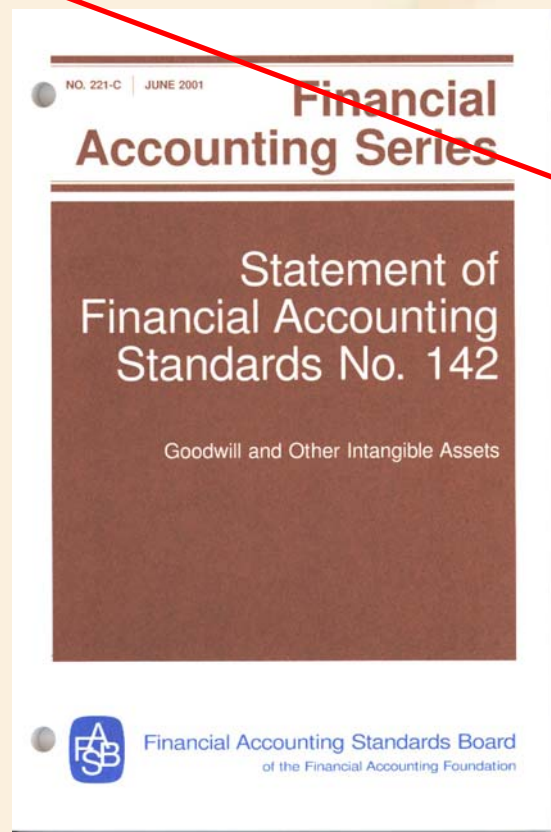
Market Value Intellectual Property & Intangibles 63.9 Billion

Balance Sheet Value for Intangibles 7.5 Billion

Merck & Company, Inc. Intellectual Property & Intangible Assets Valuation



23. The fair value of an asset (or liability) is the amount at which that asset (or liability) could be bought (or incurred) or sold (or settled) in a current transaction between willing parties, that is, other than in a forced or liquidation sale. Thus, the fair value of



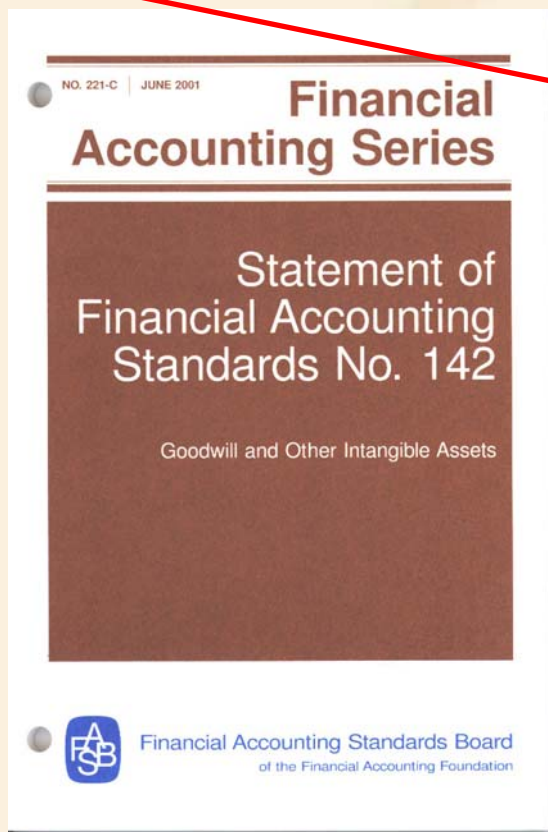
Fair Value Measurements

23. The fair value of an asset (or liability) is the amount at which that asset (or liability) could be bought (or incurred) or sold (or settled) in a current transaction between willing parties, that is, other than in a forced or liquidation sale. Thus, the fair value of a reporting unit refers to the amount at which the unit as a whole could be bought or sold in a current transaction between willing parties. Quoted market prices in active markets are the best evidence of fair value and shall be used as the basis for the measurement, if available. However, the market price of an individual equity security (and thus the market capitalization of a reporting unit with publicly traded equity securities) may not be representative of the fair value of the reporting unit as a whole.¹⁶ The quoted market price of an individual equity security, therefore, need not be the sole measurement basis of the fair value of a reporting unit.

- Paragraph 23 of the Statement of Financial Accounting Standards No. 142, June 2001



24. If quoted market prices are not available, the estimate of fair value shall be based on the best information available, including prices for similar assets and liabilities and the results of using other valuation techniques. A present value technique is often the best



24. If quoted market prices are not available, the estimate of fair value shall be based on the best information available, including prices for similar assets and liabilities and the results of using other valuation techniques. A present value technique is often the best available technique with which to estimate the fair value of a group of net assets (such as a reporting unit). If a present value technique is used to measure fair value, estimates of future cash flows used in that technique shall be consistent with the objective of measuring fair value. Those cash flow estimates shall incorporate assumptions that marketplace participants would use in their estimates of fair value. If that information is not available without undue cost and effort, an entity may use its own assumptions. Those cash flow estimates shall be based on reasonable and supportable assumptions and shall consider all available evidence. The weight given to the evidence shall be commensurate with the extent to which the evidence can be verified objectively. If a range is estimated for the amounts or timing of possible cash flows, the likelihood of possible outcomes shall be considered. Concepts Statement 7 discusses the essential elements of a present value measurement (paragraph 23), provides examples of circumstances in which an entity's cash flows might differ from the market cash flows (paragraph 32), and discusses the use of present value techniques in measuring the fair value of an asset or a liability (paragraphs 39–54 and 75–88). Appendix E of this Statement incorporates those paragraphs of Concepts Statement 7.

- Paragraph 24 of the Statement of Financial Accounting Standards No. 142, June 2001

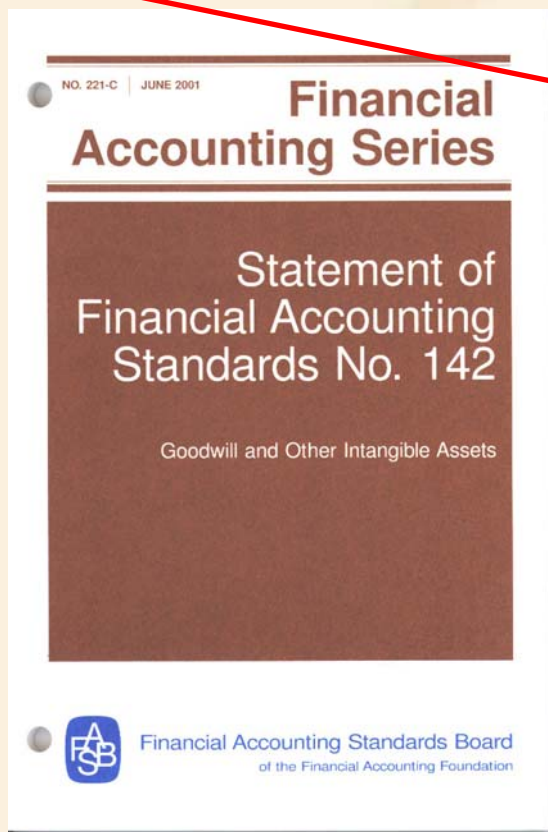


I.P. VALUATION METHODS

- Market Approach
- Cost Approach
- Income Approach
- Judicial Valuation Approach



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Reported Industry Specific Patent License Rates

Computing:	
Hardware	1-5%
Software	1-25%
Biotechnology	8 - 12 %
	Initial flat sums
Health Care	2 - 10%
medical instruments	4 - 10%
reagents and processes	1 - 3%
diagnostic in vitro	2 - 6%
diagnostics in vivo	3 - 8%
therapeutics	4 - 12%
Automotive	2 - 5%
Consumer Electronics	
low priced items	2 - 4%
high priced items	1 - 2%
game software	5 - 50%

Reported General Patent License Rates

Revolutionary Technology	5 - 10%
Major Improvements	4 - 8%
Minor Improvement	2 -5%



INCOME APPROACH

- Present Value of Future Income Stream of I.P. Asset Under Consideration
 - Future Income Stream
 - Duration of Income Stream
 - Risk



METHODS TO DETERMINE INCOME STREAM

- Residual Earnings Approach
 - Business Unit Scale
 - Technology Scale
 - Product Scale
 - Trademark or Patent Scale



METHODS TO DETERMINE INCOME STREAM

- Residual Earnings Approach Methods
 - Monte Carlo
 - Knowledge Capital Scorecard
 - Tech Factor Method
 - Crystal Ball
 - @Risk
 - Technology Risk and Reward Unit Metrics
 - Technology Review Patent Scorecard



METHODS TO DETERMINE INCOME STREAM

- Residual Earnings Approach
- Excess Earnings Approach
- Loss of Income Approach
- Relief from Royalty Approach
- Stock Option (Black-Scholes / Merton) Approach



INCOME APPROACH

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I.P. VALUATION METHODS

- Market Approach
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- Income Approach
- Judicial Valuation Approach



JUDICIAL APPROACH

- “Hypothetical Negotiation Between Willing Seller and Buyer”



Judicial Valuation Factors

“Hypothetical Negotiation Between Willing Seller and Buyer”

Technology Specific Factors

1. Profitability, commercial success and popularity of patented items.
2. Advantages of patented products over pre-existing products.
3. Nature of invention, character of products embodying invention, benefits to those who use invention.
4. Possible profit margins on goods.
5. Portion of profit attributable to invention.
6. Assistance sales of patented products gives to sales of non-patented items.
7. Duration of patent and term of license.
8. Extent of infringer’s use of invention.



Judicial Valuation Factors

“Hypothetical Negotiation Between Willing Seller and Buyer”

Buyer-Seller Specific Factors

9. Prior and existing licenses under this patent.
10. Licensee’s custom for licensing other technology.
11. Patent owner’s licensing policy.
12. Commercial relationship between parties.
13. Nature and scope of license
(e.g., exclusive v. non-exclusive, product specific, world-wide).



Judicial Valuation Factors

“Hypothetical Negotiation Between Willing Seller and Buyer”

Industry Factors

14. Industry custom and licenses under comparable patents.
15. Opinions of experts.



JUDICIAL APPROACH

- “Hypothetical Negotiation Between Willing Seller and Buyer”
- Conveyed Sales
- Price Escalation / Erosion
- Market Share Escalation / Erosion



DUE DILIGENCE

- Assessment and Minimization of Risk
- Understand the Deal



ASPECTS OF DUE DILIGENCE

- Identify all I.P. of target
- Confirm target's rights in the I.P.
- Confirm validity and enforceability of I.P. rights
- Identify intellectual capital not formally protected
- Identify relevant third-party I.P.
- Take curative steps to minimize risk



PATENT DILIGENCE

- Identify all patent assets
 - Patents, pending applications, abandoned applications and patents, licenses
 - U.S. and foreign
 - Current and previous companies
 - Utility and design
 - Owner / licensee / licensor



PATENT DILIGENCE

- **Confirm Status of Patent Assets**
 - Confirm term including extensions
 - Confirm payment of maintenance fees and annuities
 - Confirm status of applications (published, dates for action)



PATENT DILIGENCE

- **Confirm Nature of Rights**
 - Review assignments / license agreements
 - Review ownership issues
 - Review employment agreements, joint development agreements, government contracts
 - Analyze conception records
 - Laboratory notebooks, R&D memos
 - Identify blocking patents (right to use v. exclude)



PATENT DILIGENCE

- **Confirm Nature of Rights**
 - Analyze patent claims
 - Identify products (target and third-party) covered by patents
 - Confirm marking
 - Review prior art search and disclosure practice
 - Consider updated prior art search
 - Target's assessment of rights / value



PATENT DILIGENCE

- Confirm Nature of Rights
 - Review offensive actions against third-parties
 - Resolution
 - Estoppel issues
 - Reasonable royalty issues
 - Confidentiality



PATENT DILIGENCE

- Analyze defensive trespass issues
 - Review all legal opinions (freedom to operate, non-infringement, invalidity)
 - Identify all past, present and future I.P. litigation
 - Review closed cases
 - Review pending cases
 - Review notice letters
 - Consider whether additional legal opinions are merited



TRADE SECRET DILIGENCE

- Analyze substantive trade secrets
- Analyze ownership / development issues
- Analyze confidentiality practices
 - Non-disclosure agreements
 - Use of “Confidential” markings
 - Notice to employees of confidential nature
 - Practices for dissemination of information



SOURCES OF INFORMATION

- Target
 - Records
 - Technical – legal - corporate
 - Questionnaires
 - Interviews
 - Technical, business (third-parties)



SOURCES OF INFORMATION

- U.S. Patent and Trademark Office
 - File histories
 - Recent applications
 - Assignment records
 - Term extensions
- UCC filings



SOURCES OF INFORMATION

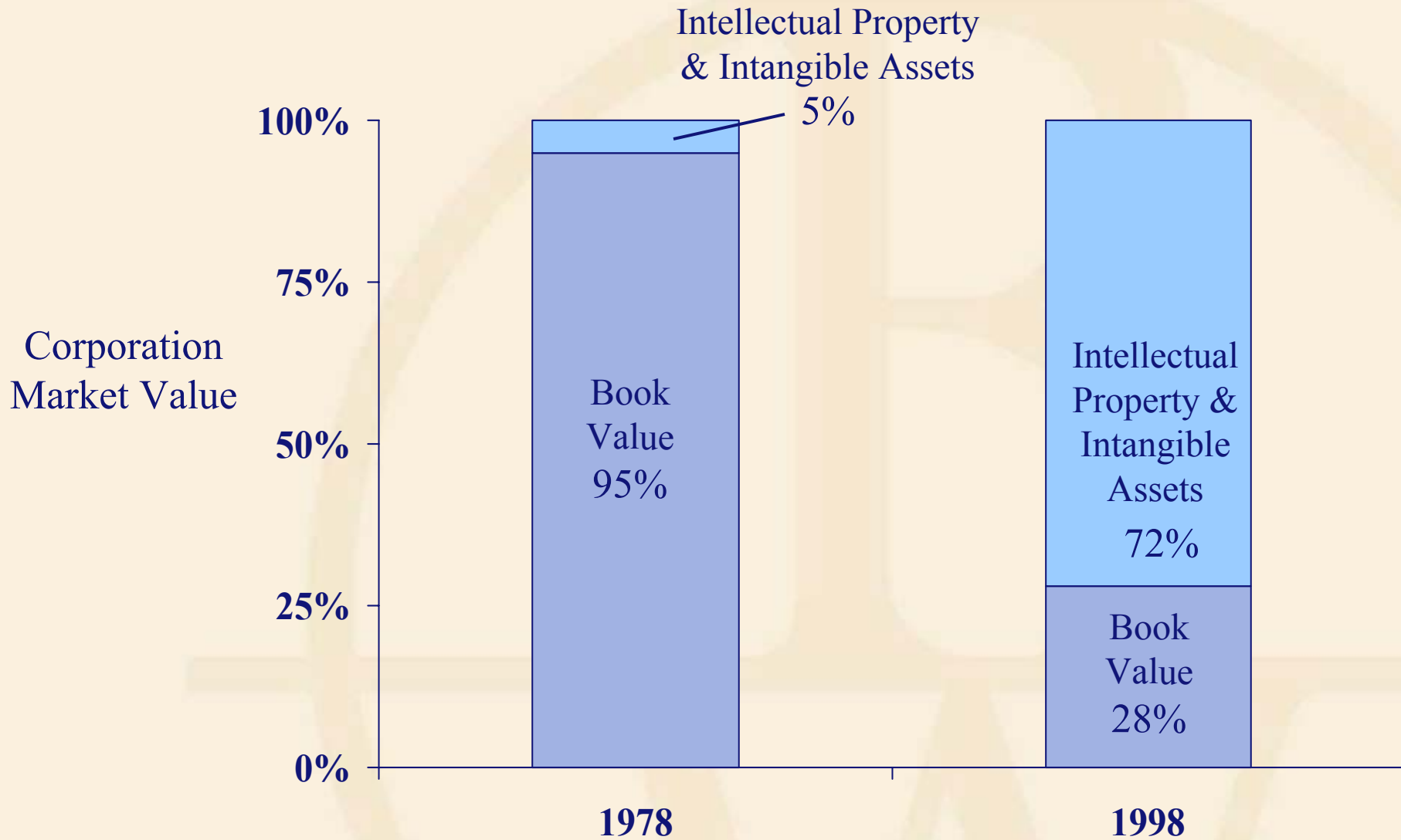
- Electronic databases
 - Delphion
 - Derwent
 - Assignment records
- Extraterritorial Patent Offices
 - Canada, EPO, e.g.



DILIGENCE AND VALUATION

- Diligence information will assist in determining value of intellectual assets
- Determine value of intellectual assets in context of overall Target value
- Forcing Target to resolve diligence issues increases value of intellectual assets





Book Value and Market Value of Sample of 3,500 Corporations

