



Dr. Nir Kossovsky, CEO
The Patent & License Exchange, USA

Intellectual Property
Monetization

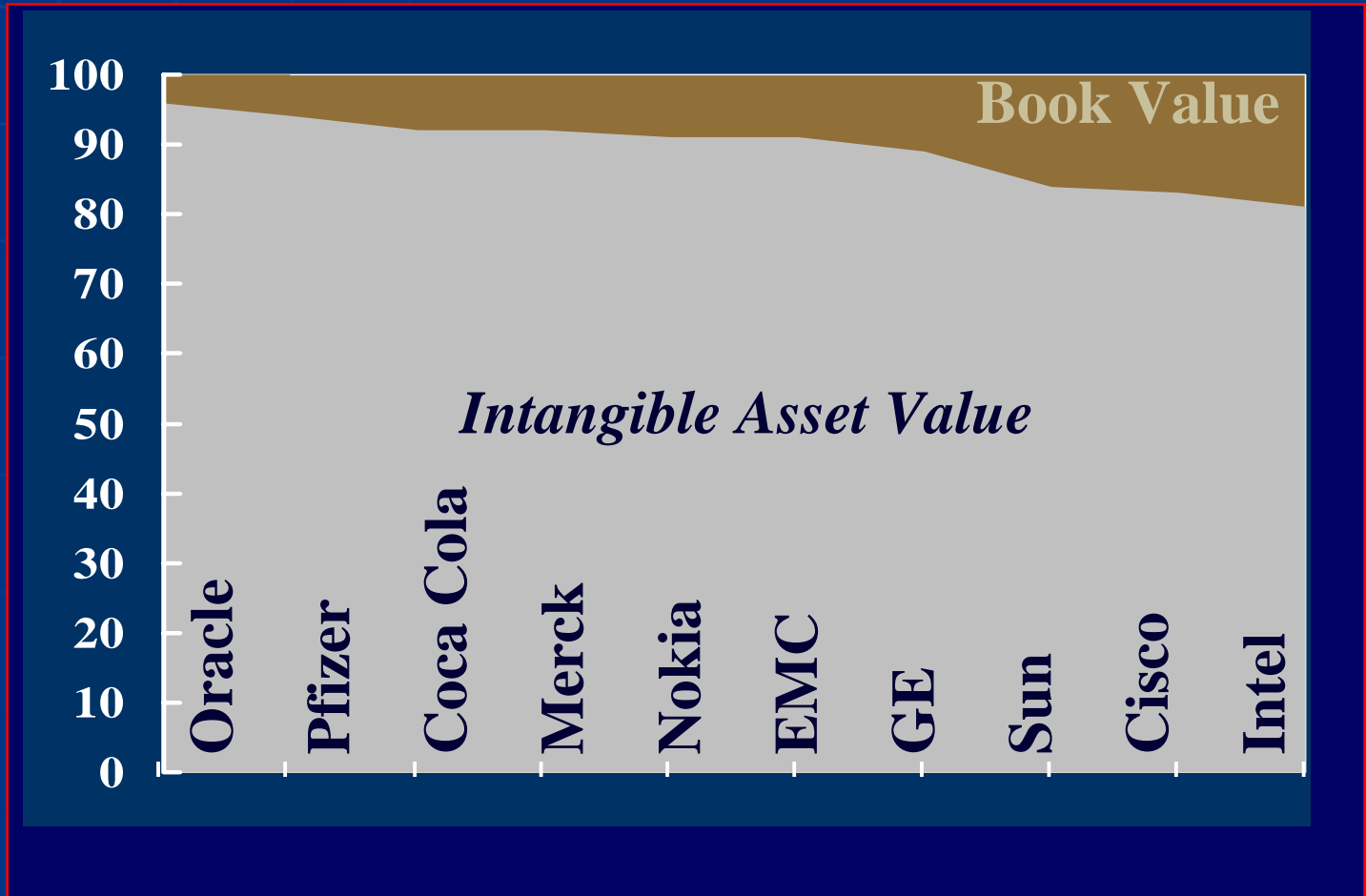
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- IP is a financial asset
- IP is becoming a financial instrument
- IP's global value depends on the harmonization of both legal and financial practices
- WIPO should expand its IP harmonization efforts to include financial considerations

Intangible assets are valuable

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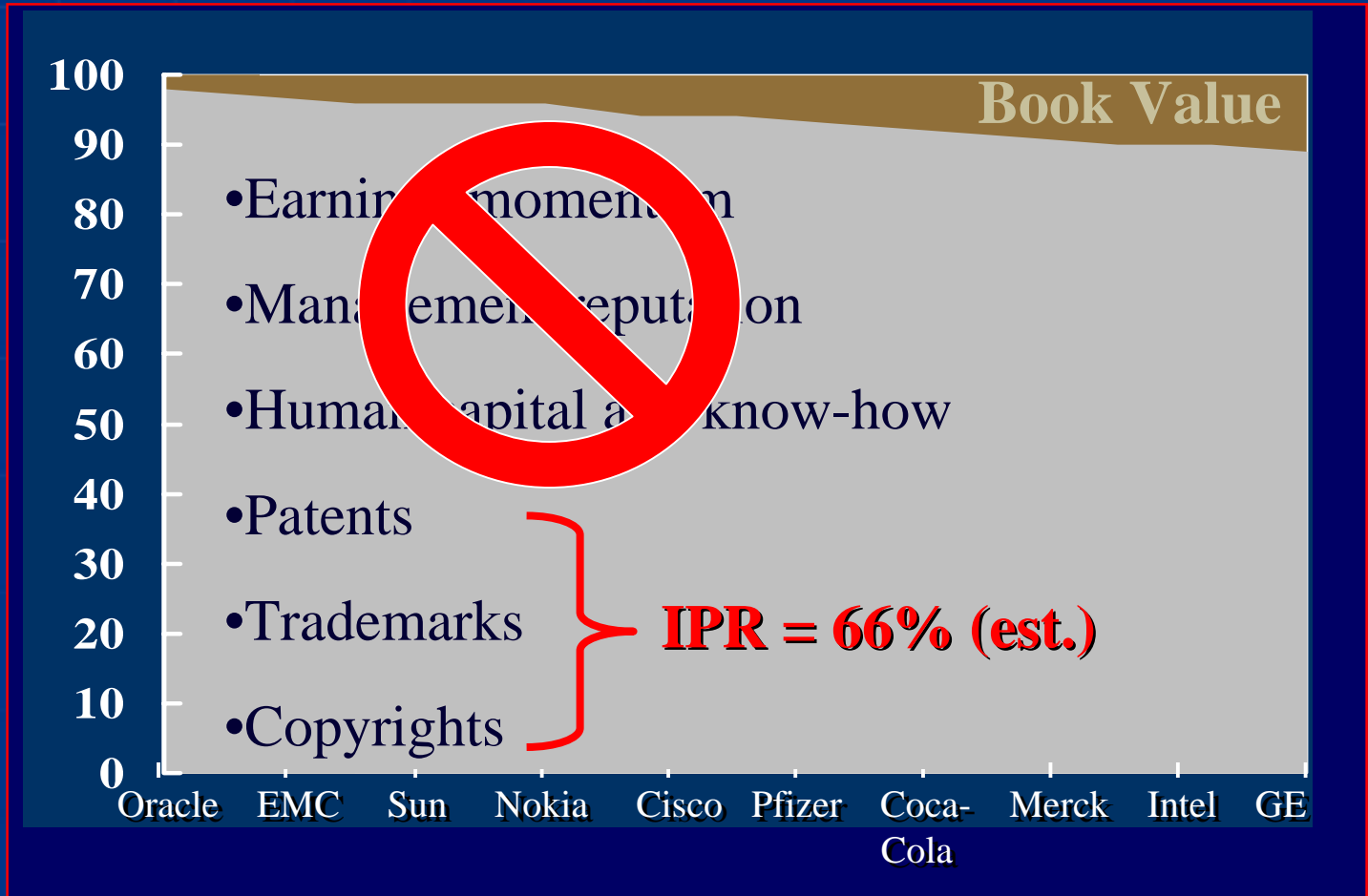
1 Mar 01: Market Rewards Companies That Harness IP



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IP is a key intangible asset

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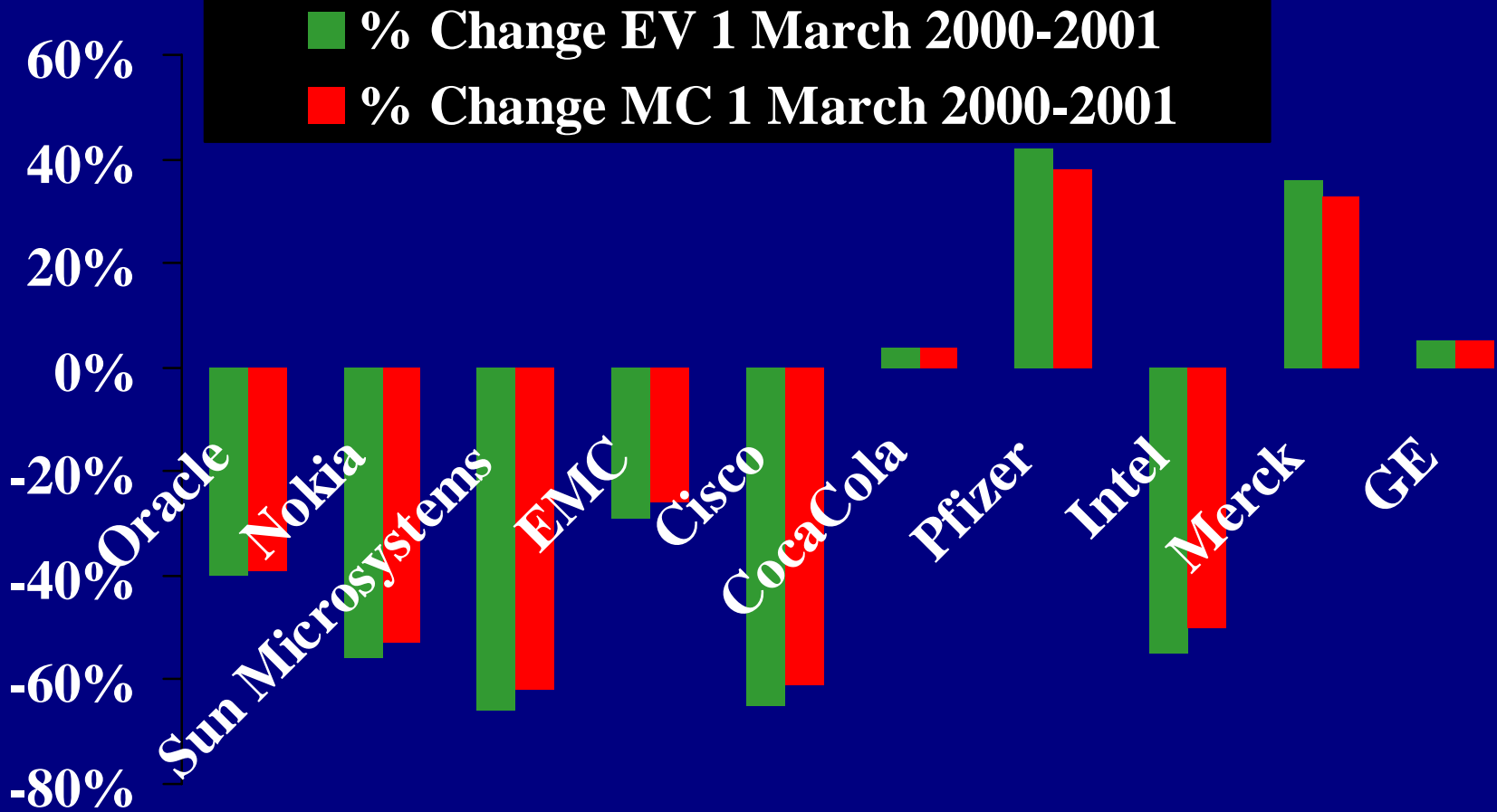
Market Rewards Companies That Harness IP



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Intangible value \approx market cap

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IP: a *monetizable* asset

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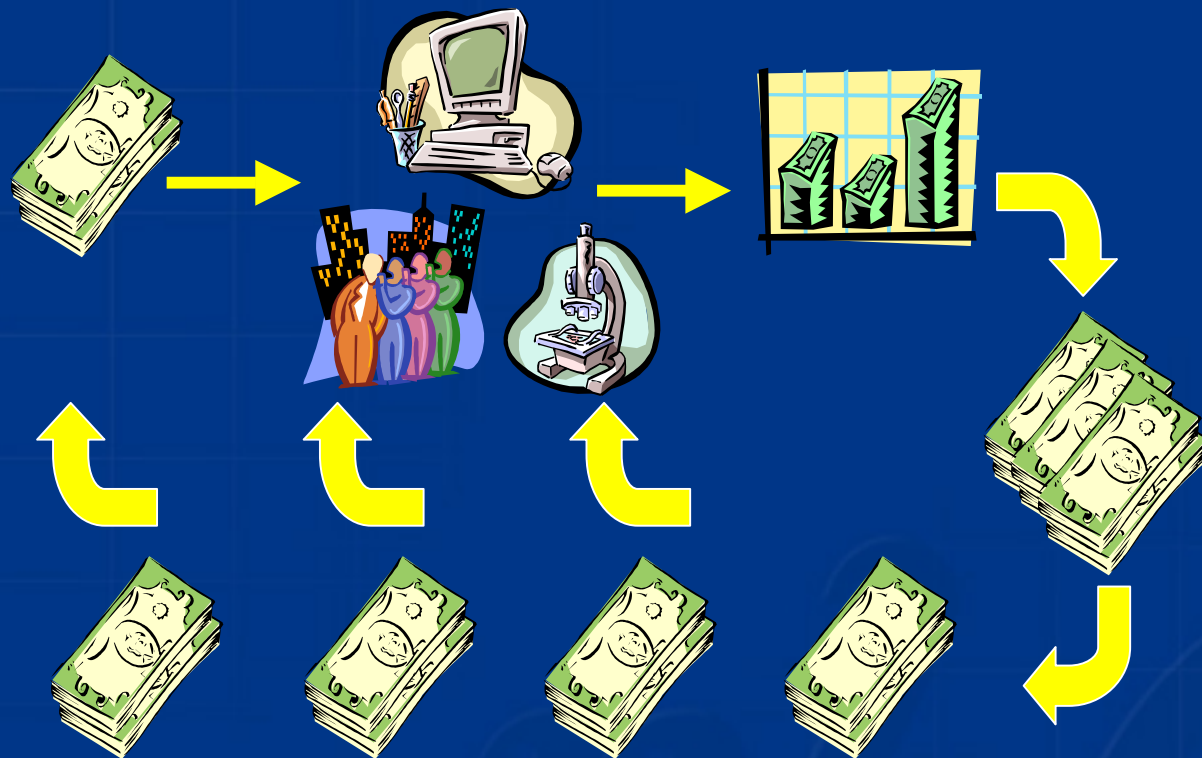
Asset	Monetization Event (Cash Flow)
Bond	<ul style="list-style-type: none">• Pay to acquire bond• Receive interest payments
Stock	<ul style="list-style-type: none">• Pay to acquire stock• Receive cash on sale
Intellectual property (I)	<ul style="list-style-type: none">• Pay to perfect rights• Exercise rights and pay to develop technology• Receive cash on sale of product



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IP is an asset: Investment cycle

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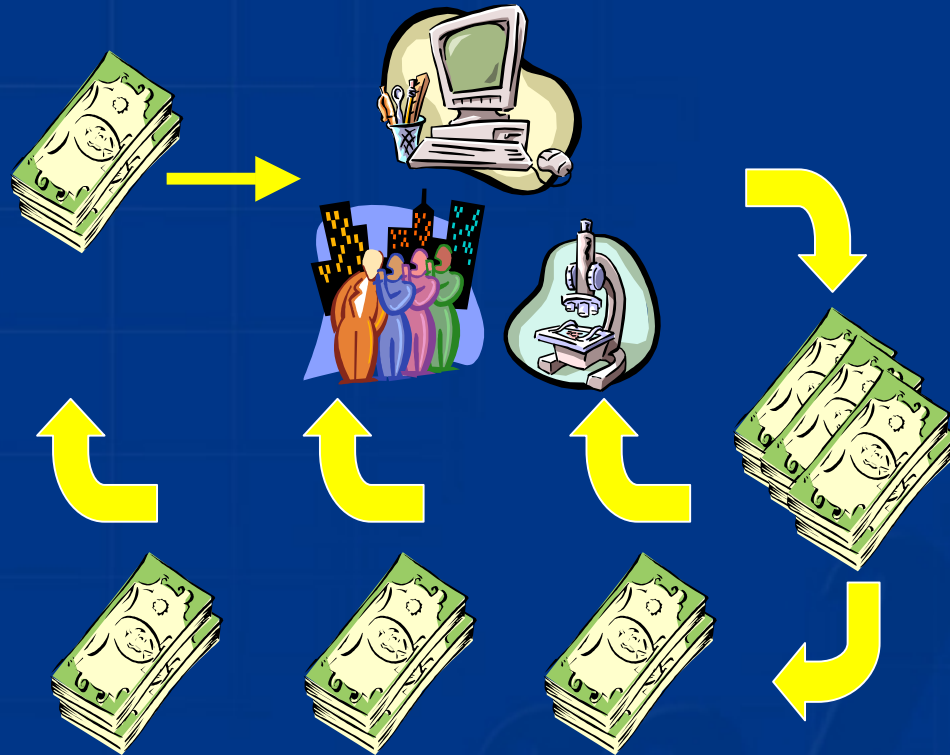
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Instrument	Monetization Event (Cash Flow)
Bond	<ul style="list-style-type: none">• Pay to acquire bond• Receive interest payments
Stock	<ul style="list-style-type: none">• Pay to acquire stock• Receive cash on sale
Intellectual property (II)	<ul style="list-style-type: none">• Pay to perfect rights• License or assign, collateralize, etc.

IP is an instrument: Investment cycle

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Create value from IP, an instrument:

- License, cross-license, in-license
- Sell (assign)
- Allow to expire or donate
- Collateralize
- Securitize
- 1031 Exchange
- Minority equity investment

Maximize transaction opportunities

Minimize transaction risks



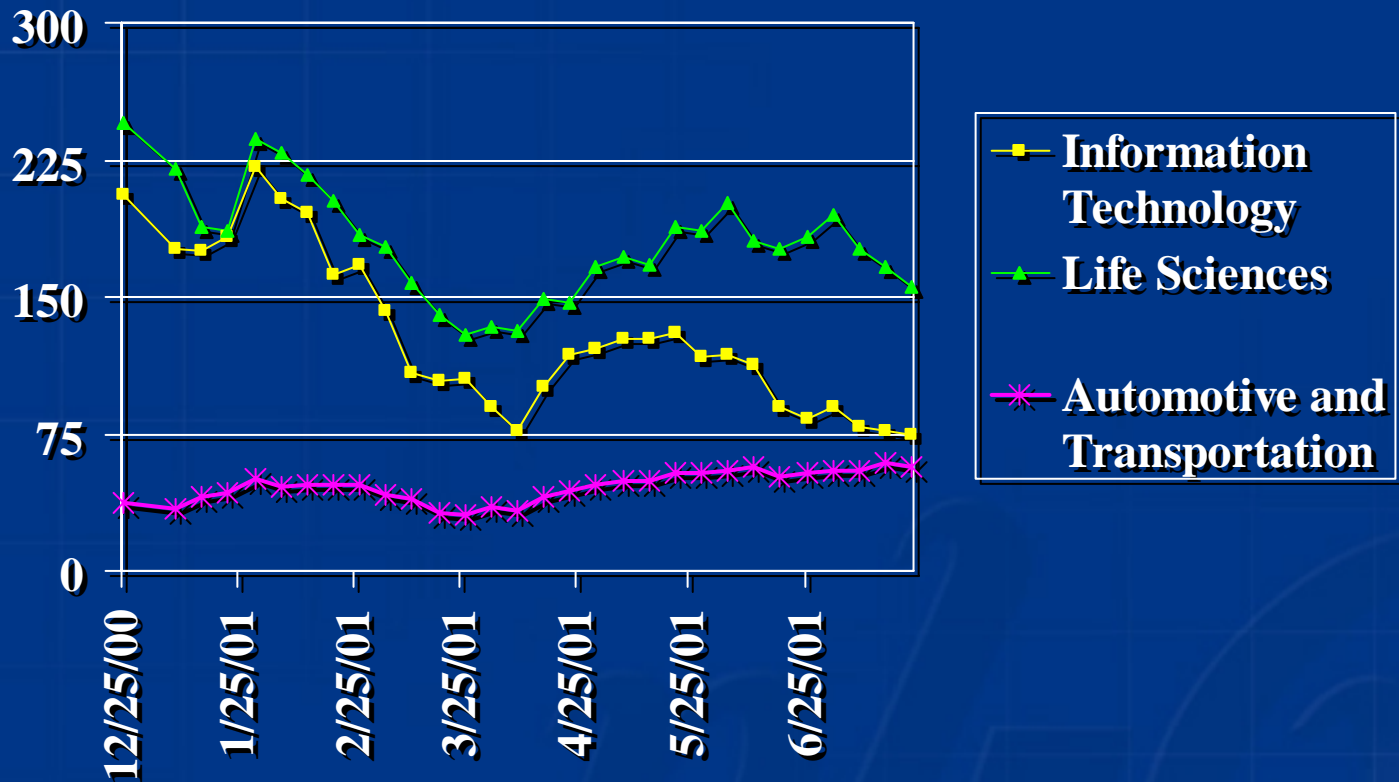


- Provide rights without obligations
- Patents are options on technology
 - Call option on the future cash flow that may (or may not) arise from a technology
 - Embedded put options to enforce
 - Annual option to renew
 - IP is a real option – a financial derivative



IP value is market driven**

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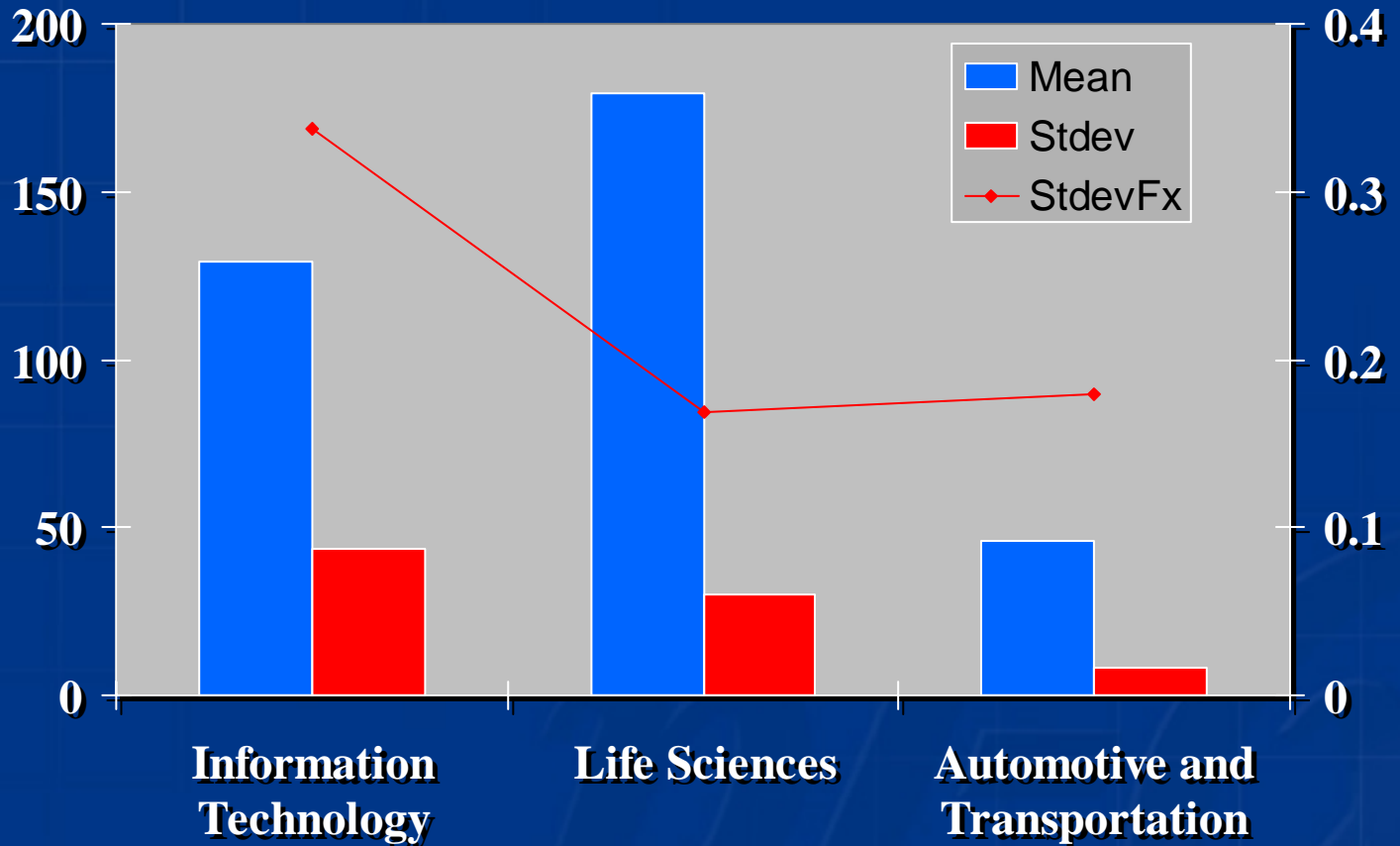
Source: pl-x Intangible Asset Market Index
**Financial Accounting Standards Board
Statements No. 141 and 142



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Reward value range over 7 months

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Source: pl-x Intangible Asset Market Index

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Median Values, 8000 IP Assets

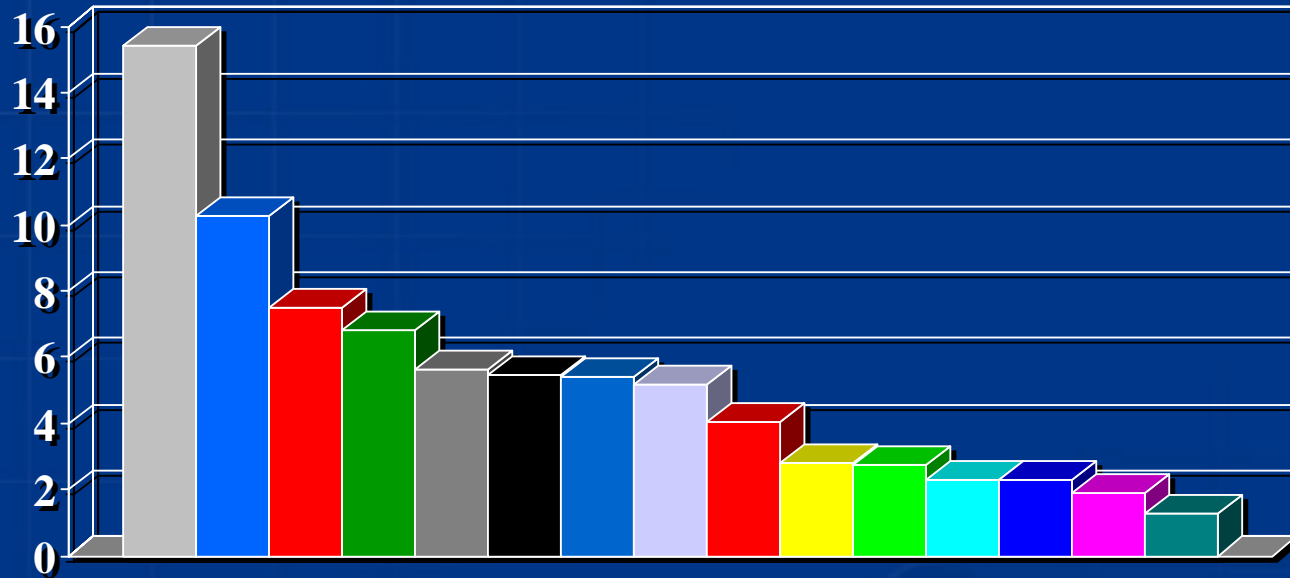
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Population -wide measures

Mean
20.76

Median
5.19

Mode
8



■ Life Sciences Technology

■ Software

■ Telecommunications Technology

■ Advanced Materials



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- Discounted technology cash flow

$$PV = \text{Upfront.fee} + \sum_{n=t}^L \frac{C_n}{(1+r)^n}$$

- DCF – Monte Carlo

$$PV = \text{Upfront.fee} + \sum_{n=t}^L \frac{f(C_\mu, C_\sigma)_n}{(1+r)^n}$$

$$h = \left\{ \ln(S_t/K) + r\tau + \sigma^2\tau/2 \right\} / \sigma\sqrt{\tau}$$

$$\sigma^2 = \frac{\text{Var} \left[\ln \left(\frac{S_{t+\Delta t}}{S_t} \right) \right]}{\Delta t}$$

$$C_t = S_t N(h) - Ke^{-r\tau} N(h - \sigma\sqrt{\tau})$$

Measured
reward – not
cash flow

Measured risk

**Market-based
measure of
reward**


**Observed risk
from variance**



β to a discount rate

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$$PV = \text{Upfront.fee} + \sum_{n=t}^L \frac{f(C_{\mu}, C_{\sigma})_n}{(1+r)^n}$$

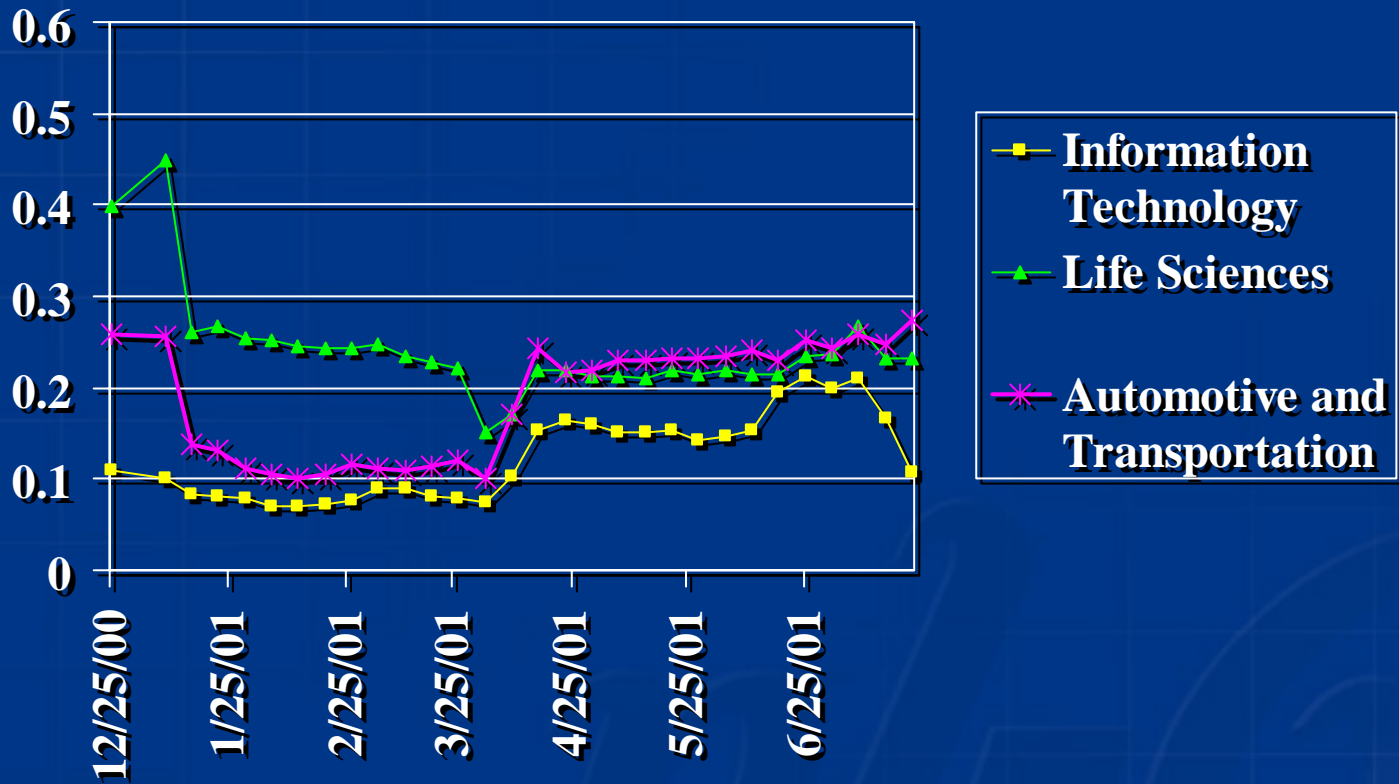

$$r_{\text{exp}} = r_f + \beta(r_{m-\text{avg}} - r_f)$$



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Uncertainty of discount rate

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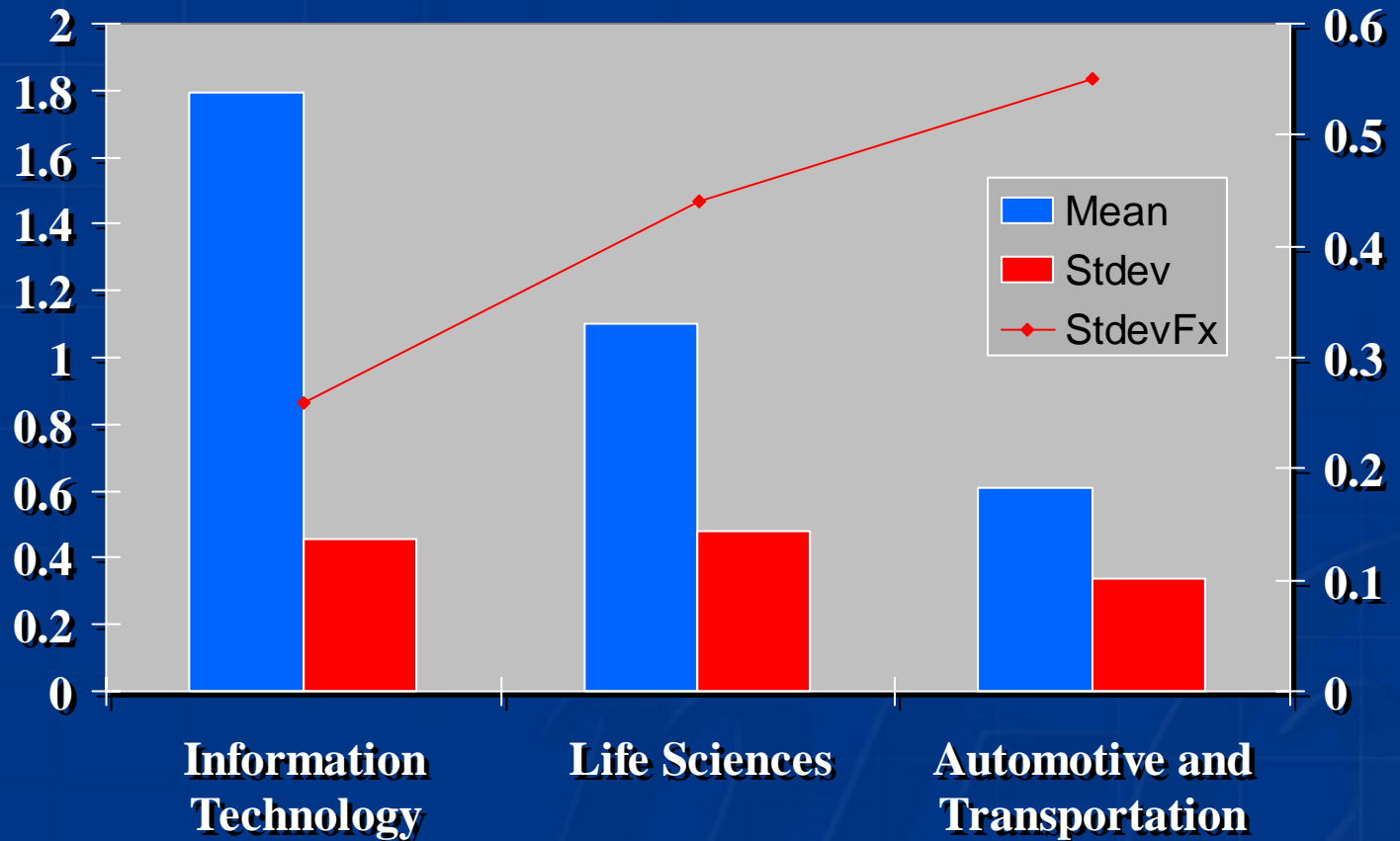
Source: pl-x TRRU[®] metrics: CAPM



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Risk (β) value range over 7 months

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Source: pl-x Beta Watch



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- Needs parallel WIPO legal harmonization efforts
- Uncertainty regarding financial opportunities
 - Reduces commercial opportunities
 - Reduces global investment
- *Should* be addressed by WIPO harmonization efforts



- **WIPO should promote global harmonization of financial aspects of IP**

Examples of financial initiatives

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Interactive IP Catalog

- Global language of science and technology
- Standardized units and ranges of values
- Solves prose limitations

Automatic Patent Validity Insurance

- International risk mitigation
- \$10 million coverage
- Transaction costs
- Lost royalties




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Swiss Re




 Chicago Title




The Daily Deal
LAW SERVICES

Transaction Assurance Services

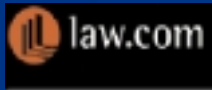
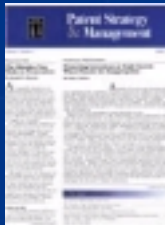
- International risk mitigation
- Standard escrows
- Standardized deal documents

Market-Driven Measures of Risk and Reward

- Market-based indications of value



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- Options pricing and TRRU® Metrics
 - *les Nouvelles*, 2000 (Sept); 139-143
 - *les Nouvelles*, 2001 (Sept)
 - *Patent Strategy & Management*, Sept 2000.
 - *Patent Strategy & Management*, Mar 2001
 - Harvard Business School (case study) N1-601-109 (Fall 2000)
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