

UNECE International Conference on Intellectual Property Rights Protection and Transforming Research and Development Outputs into Intangible Assets in Economies in Transition

July 25 - 26, 2007, Geneva

Understanding the Value of IP Assets: The Basics of IP Valuation

Christopher M. Kalanje, Consultant, Creative Industries Division, WIPO

July 26, 2007

Value Basis of IP Assets



IP Valuation

- A relatively new area
 - Process of determining value or worth of an asset
 - Often combines objective and subjective considerations
 - Triggered by various reasons
- (Context)

• Value of IP \neq Price of IP

• Value of IP represents the potential current and future benefits to the IP user

• Price of IP represents the amount of money that ownership of an underlying IP would be exchanged between willing buyer and seller

Value Basis of IP Assets contd.

- Traditionally *IP assets* were treated as *Goodwill*
 - *Goodwill=the amount paid for a business in excess of the fair value of its identifiable net assets at the date of acquisition* (see Peguin dictionary of accounting)
- Advent of *knowledge economy* and *high market value* of companies as opposed to *book value* enhanced interest on value of IP

Value Basis of IP Assets contd.

- IP assets have *distinctive characteristics* which makes it possible to value them separately from other intangible assets
- These characteristics include
 - *Independently identifiable*
 - *Legally protected and enforced*
 - *Transferable*
 - *Economic life*

Value Basis of IP Assets contd.

- Final valuation would depend on the following basic premises of value
 - *Value in exchange*: worth of the underlying IP asset in terms of its capacity to be exchanged in terms of money
 - *Value in continued use*: worth of the underlying IP asset to its owner on the basis that it continues to generate income to the owner

Value Basis of IP Assets contd.

- *Acquisition value*: strategic potential of the underlying IP asset e.g. uses in M & A
- *Value in place (best use concept)*: worth of the underlying IP asset as it is. i.e. the said IP asset is not in current use in the production of income. Intended to secure and exploit future growth opportunities

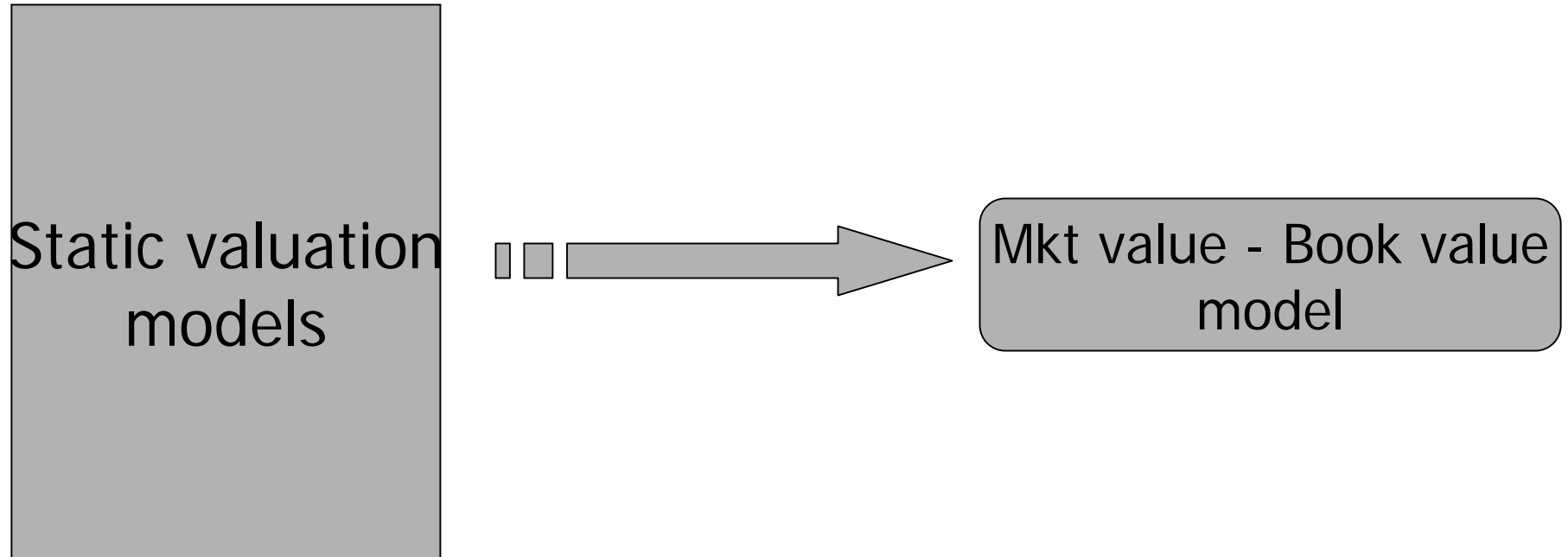
IP Valuation Triggers

- These include
 - Sale or Purchase of IP Assets
 - Licensing
 - Merger & Acquisition
 - Cost saving, IP asset donation
 - Litigation
 - Joint venture arrangements/strategic alliances
 - Financial Reporting

Intellectual Property Valuation

- Valuation models may be broadly divided into two
 - **Static models**
 - Estimate value of accumulated intellectual assets at a point in time
 - Does not differentiate temporal differences in the accumulated IP
 - Does not differentiate the differences among different categories of IA at the time of valuation

Intellectual Property Valuation contd.



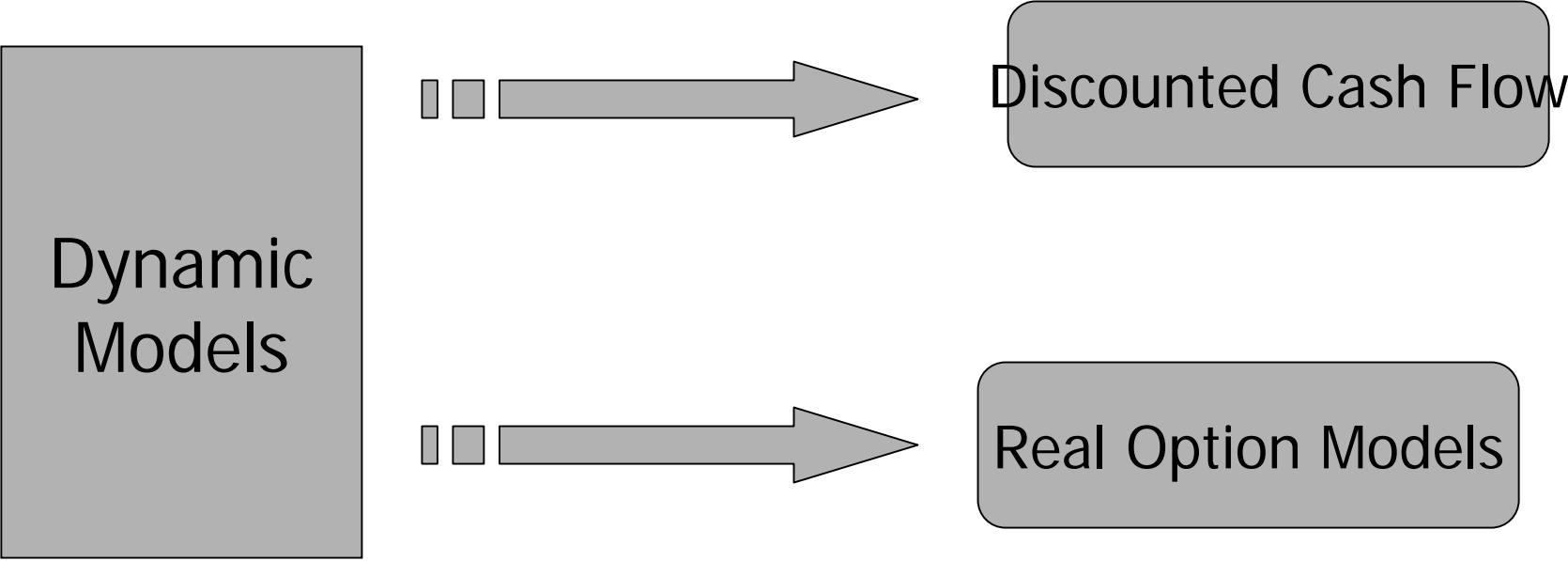
More info: Valuation of Intellectual capital and Real Option Models by Sudarsanam, S. et al
<http://www.realoptions.org/papers2004/SudarsanamIntellCap.pdf>

Intellectual Property Valuation contd.

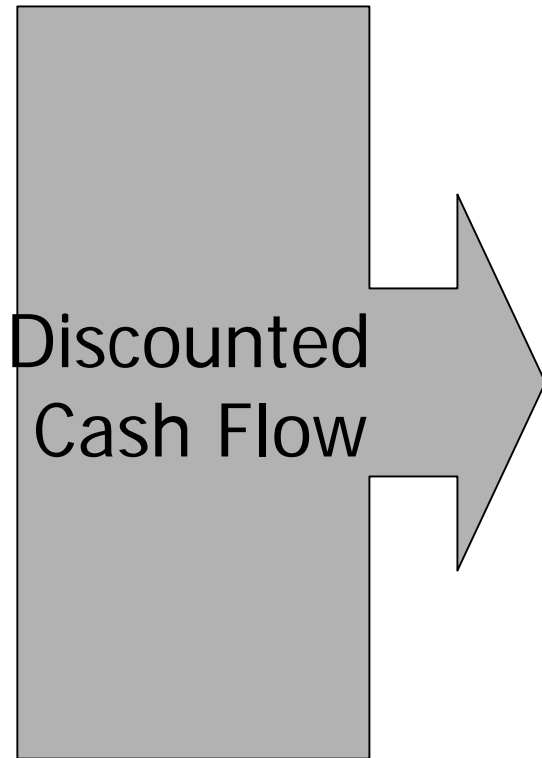
– Dynamic models

- Take into consideration the temporal difference in the accumulated intellectual assets (e.g. time value of money and riskiness of the forecast cash flow)
- Value investments in intangibles each at a time

Intellectual Property Valuation contd.



Intellectual Property Valuation contd.



Projected economic income
of underlying IP economic life

Discounting the projected economic
income of the discrete projection period

PV arrived at by use of
discount rate

Methods of IP Assets Valuation

- Basic Methods
 - **Cost Approach**: Estimates the value of underlying IP asset basing on historical cost incurred in developing the asset
 - Replacement cost
 - Replacement of one asset by another which is of equal value from the view point of the function performed
 - Reproduction cost

Methods of IP assets Valuation contd.

– Market Approach (sales comparison approach):

- Based on the value of similar or comparable assets that have been exchanged, at arm's length, in active market
- second variant uses standard industrial royalty rates

Methods of IP assets Valuation contd.

- **Income Approach**: Based on the income-producing capability of underlying IP asset
 - Seeks to establish the net present value (hence use of discounted cashflow)

Methods of IP assets Valuation contd.

- **Royalty relief**

- Forecast is based on volume of sales from which payment of royalties is expected
- Use market information or standard royalty rate table to determine royalty rate
- Determine economic life of underlying patent or licence

Methods of IP assets Valuation contd.

- Calculate expected payment in form of royalties and deduct cost associated with maintaining the underlying patent
- Discount the resulting cashflow/profit resulting from royalty payment
- The discounted value of the profit flows for the entire period is determined

- For more info: A. N. Kozyrev, Evaluation of Intellectual Property and Intangible Assets, ECE working paper, November 2002

Methods of IP assets Valuation contd.

- Some limitations of DCF methods
 - Difference in level of risk overtime is not reflected
 - Some methods are time-consuming and involve costly calculations
 - Clarity is needed on use of risk free discount rate and opportunity cost of capital in determining NPV

Methods of IP assets Valuation contd.

- **Real option models** (Based on Black-Scholes option pricing model)
- Real option describes an option to buy or sell an investment in physical or intangible assets rather than in financial assets

Methods of IP assets Valuation contd.

- **Some Challenges of using OPM**
 - Assessment of volatility of returns to a patent
 - Assessing PV of patent cashflow
 - Accounting for any variations in the volatility

Source: R. Pitkethly, Valuation of patents, ppt.

Finally

Thank you for your kind attention