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X OIV Business Valuation International Conference New standards and advanced issues

Minority Interest Discounts: getting them robust and supportable Sandra Mossios Partner, EY UK&I



Overview of today's session

- General comment: valuation method used and resulting level of value determines whether a minority discount is applicable, and whether either DLOM, DLOC or both are required
- Standards of Value: market value, fair value (x3), other, and why it matters
- ➤ Components of Minority Interest Discount: Discounts for Lack of Marketability (DLOM) and Control (DLOC) main sources for each
- > Some Guidance seen used in the UK (and generally abroad) and its limitations, guidance in the International Valuation Standards
- Recent surveys: what are valuers using in their DLOM analysis?
- > DLOM and Restricted Stock Studies: criticisms and a closer look at the population, problems with averages from studies, some factors to consider when assessing DLOM

The approach and applicability in each circumstance depends among other things, the facts of the case, scope and purpose of engagement, information available etc.



Overview of today's session

- > Some DLOM views from Case law in the US...
- **Example of Minority discounts in UK Case law:** discounts observed, insights where Experts have differing views
- ➤ Option modelling for DLOMs: strengths and weaknesses, which models are suitable when?
- > **DLOC:** yes, no maybe? Factors to consider when assessing the DLOC
- > Case study on DLOM & DLOC
- Concluding suggested tips for arriving at robust Minority Interest Discounts, a combined approach...

The approach and applicability in each circumstance depends among other things, the facts of the case, scope and purpose of engagement, information available etc.



1. Lets start with the Standard of Value



Standards of value: Market Value, Fair Value (x3), other value... Does a Minority Interest Discount apply?

1

Market Value

- Willing knowledgeable buyer and seller
- Arm's length
- Proper marketing, orderly transaction, under no compulsion
- Minority discounts apply

Market value (IVSC) (Fair market value in USA) UK tax basis is OMV 2

Fair Value / Equitable Value

- Definition seems similar to "market value" but
- Key difference is that the parties are identified
- Particular interests should be considered
- Minority discounts may or may not apply

"Fair value" (IVSC) before 2017, now defined as "Equitable value" 3

Fair Value – under Articles /Shareholders Agreement

- We always need to read them!
- Varies depending on what shareholders agree
- Typically clauses state minority is worth pro-rata value of 100%

Company Articles of Association/ Shareholders Agreement 4

Fair Value – Financial Reporting

- Purchase Price Allocation
- Impairment Testing
- Key difference value to identified Market Participants

5

Special Bases

- ► Investment Value
- Synergetic Value
- ► The value of an asset to the owner or a prospective owner for individual investment or operational objectives

IFRS

IVSC



Standards of value: example of some jurisdictional differences... Does Minority Interest Discount apply?

Minority oppression/merger dissent cases:	Starting point with most Experts is usually Fair Value/Equitable value per IVSC (applicability of discounts varies)
England and Wales	Could include minority discount or not – depends on facts of the case
BVI & Bermuda	Could include minority discount or not – depends on facts of the case
Canada and Delaware	Pro-rata 100%, no minority interest discount
Cayman	Two cases followed Canadian/Delaware so no minority discount (Shanda and Integra) One case (Shanda Games) was appealed and minority discount allowed following England and Wales jurisprudence



Discounts may not apply in a "quasi-partnership"...

Discount for a less than 100% holding (to its pro-rata value) might not be applied in quasi partnerships:

Defined by Lord Wilberforce in Ebrahimi v Westbourne Galleries Ltd [1973] AC 360 as:

...'personal relationship involving mutual confidence'often 'where a **pre-existing partnership** has been converted into a limited company'

'all or some of the shareholders...shall participate in the conduct of the business';

'restriction on the transfer of shares'

Depends on the findings regarding the conduct of the parties, and the nature of the entity within which shares are held.



Illustration of how the "Standard of value" used makes a difference in the valuation conclusion

Scenario: an online gaming company is valued at an equity value of £35 million on a "market value" basis for its 100% equity interest.

Question: what is the equity value for a 30% minority interest in this gaming company?

Assumed an illustrative Minority Interest Discount of 25%

The valuation conclusions could be quite different under different standards / bases of value as differing assumptions are adopted.

Market value (IVSC)	Hypothetical transaction between willing parties	£35 m x 30% = £10.5m, less 25% = £7.9m
Equitable value (IVSC)	Specific Identified buyer who hold 30%, who gains control from this transaction, as he holds 60% afterwards (but doesn't have unfettered control, illustrative minority discount 10%)	£35 m x 30% = £10.5m, less 10% £9.0m
Fair value (Shareholders agreement) An existing shareholder seeking pro-rata value as agreement		£35 m x 30% = £10.5m
Fair value (Legal)	Differing jurisdictional interpretations on Fair value, for ex- Interest Discounts should be allowed for minority oppression	

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2. Components of Minority Interest Discount



Overview of some main sources, guidance in the UK (and generally abroad) and its limitations**

DISCOUNT FOR LACK OF MARKETABILITY

- Empirical research: Restricted Stock Studies (to a lesser extent pre-IPO)
- Put Option Pricing Models
- Mendelbaum factors (two experts at polar opposite DLOM 30%, 70% to 75%, court "unpersuaded" found "limited refuge")

DISCOUNT FOR LACK OF CONTROL

- HMRC SAV
- Control Premium Studies: what's control worth in the industry? Is minority "influential"?
- Discounts to NAV (Closed end funds and REITS)

SOURCES FOR BOTH DLOM & DLOC (illustrative):

- ACCA Technical Fact Sheet caution! (and various other studies conducted over the years, surveys etc.)
- Practical Share Valuation Book 2019, Eastaway et.al.
- Business Valuation Discounts and Premiums book 2009, Pratt
- Business Valuation Case Law Yearbook (US)
- Country specific court cases



^{**}This is a general overview of some of the sources available. The approach and applicability in each circumstance depends among other things, the facts of the case, scope and purpose of engagement, information available etc.

Some sources: high level guidance sometimes seen used in the UK (and generally abroad) and its limitations

Some guidance in UK: heavily qualified and for tax purposes (discount 5% to 70%)

		HMRC (Cont	rol only)	ACCA technical fact sheet (Control
Size of holding	Nature of Control	Low	High	
90% and over	Appears no good reason why 90% + should be valued at higher than between 75% and 90% (Adv. of being able to compulsorily acquire the remaining shares in accordance with s428 of Companies Act 1985, doubtful makes a difference as provisions for minority protection, and don't apply where take-over is an individual-only to companies)	0.0%	5.0%	
75% and over but less than 90%	Absolute control on all matters including Winding Up	0.0%	5.0%	May be small
Over 50% and less than 75%	Day to Day Executive Control. Control on questions of general management of the companies affairs but lack power to pass special resolutions un-aided	5.0%	15.0%	Say 10%
50% holding	Neither a majority nor a minority	20.0%	30.0%	Difficult: perhaps 25% if deadlock
Influential Minority	The discount should be adjusted to reflect the lack of management control	Suggests w greater than the 30% range	ne 20% to	
26% to 49%	In the UK 25%+ is "influential" - has negative control			Might be between 30% and 40%
10% to 25%				45% and 55%
Less than 10%				Between 60% and 70% may be appropriate



Does Minority Interest Discount apply?

Proceed with caution when surveys, studies etc. and for example when using the ACCA and HMRC guidance...

ACCA technical fact sheet (small, 10% to 70%):

"The valuer should bear in mind that all of the above discounts are broad guidelines only, and will vary according to the facts of each case...

"The discounts outlined above are likely to be appropriate for normal open market value valuations, such as tax valuations...for the purposes of a dispute or divorce, then if no guidance is provided via a shareholders' agreement or under the Articles...discounts of the order of those shown above are likely to be too high, and even for small, uninfluential minority interests a discount of no more than, say, 33% may be appropriate.

HMRC SAV Guidance:

"valuers must rely on the **facts of the particular case** and their own experience when deciding upon a reasonable level of discount...general guidelines...**each case must be treated on its own merits**"



What do the International Valuation Standards say?

IVS states that DLOCs and DLOMs may be quantified using any reasonable method but are typically calculated as follows:

Control Premiums and DLOCs:

based on either an analysis of the specific cash flow enhancements or reductions in risk associated with control or by comparing observed prices paid for controlling interests in publicly-traded securities to the publicly-traded price before such a transaction is announced [IVS 2022 105 30.17(b)]

DLOM:

using option pricing models, studies that compare the value of publicly-traded shares and restricted shares in the same company, or studies that compare the value of shares in a company before and after an initial public offering [IVS 2022 105 30.17(a)]

The approach and applicability in each circumstance depends among other things, the facts of the case, scope and purpose of engagement, information available etc. For example for DLOM pre-IPO studies are usually less commonly used

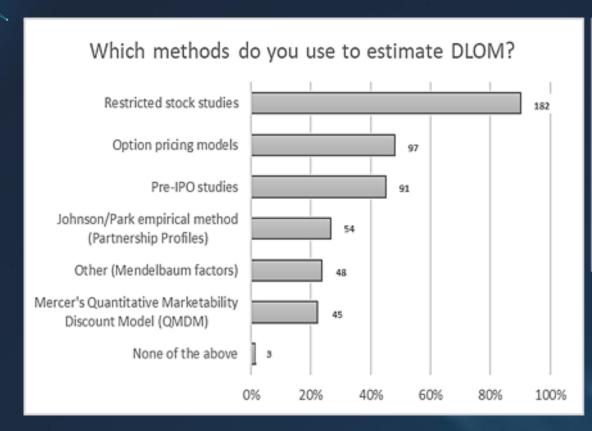


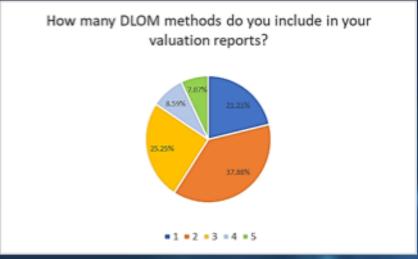
3. Discount for Lack of Marketability ('DLOM')



DLOM – what are Valuers using?

Recent survey conducted in the USA by third party regarding methods used to quantify DLOMs....





Most valuers (c.80%) use 2 or more methods to quantify DLOM



DLOM – Restricted stock studies and issues with blanket averages...

Before Mendelbaum (1995), valuers used "benchmark approach" 33% to 35% DLOM, RSS helpful

but be aware of criticisms...

- Averages from RSS range from 9% (1-year restriction) to 33% for 2-year restriction)
- Problems with blanket averages
- Important to understand characteristics of companies in which Restricted Stocks issued
- FMV study showed DLOM ranged from 2.9% to 43.7% based on "quality" of company 5 quartiles
 - > 2.9% Low leverage, large asset base \$43.6 million
 - ➤ 43.7% High leverage, small asset base \$6.0 million
- If possible, important to benchmark your subject company to the companies in which Restricted Stocks were issued, lets take a closer look at the Restricted Stocks in the Stout database...

Years studied	Name of study	Average discount	Restrictio perio
1966-1969	SEC institutional investor	25.8%	Two years
1968-1970	Milton Gelman	33.0%	Two year
1969-1972	Robert E Moroney	35.6%	Two year
1969-1973	J. Michael Maher	35.4%	Two year
1968-1972	Robert Trout	33.5%	Two year
1978-1982	Standard Research Consultants	45.0%	Two year
1981-1984	Willamete Management Assoc	31.2%	Two year
1981-1988	William I Siher	33.8%	Two year
1979-1992	FMW Opinions Inc	23.0%	Two year
1991-1995	Bruce A Johnson	20.0%	Two year
1996-1997	Columbia Financial Advisors	21.0%	Two year
1997-1998	Columbia Financial Advisors	13.0%	One yea
	2 years restriction:		
	Mean	33.0%	
	Low	20.0%	
	High	45.0%	
	One year restriction (mean)	13.0%	
	One year restriction (median)	9.0%	
	Post 1990 (2 & 1 year restriction, with new Rule 144A trading bow Institu	18.0%	
1 Prior to 1990, the p	eriod of restriction on sale was two years		
2. In 1990, Rule 144	A was enacted which enabled institutional investors to buy and sell restricted securities among themselves		
3. In 1997, the Rule 1	144A holding period was decreased from two years to one year.		
The period was again	shortened to six months in 2008		

The approach and applicability in each circumstance depends among other things, the facts of the case, scope and purpose of engagement, information available etc.



Discounts in RSS vary: quality of company, industry, block size a closer look at Restricted Stock data

	No. of Trans.	Discount	% Shares held	Market value	Total Assets	Net Assets	Issuer Volatility
All	759	15.8%	10.3%	127.2	44.6	31.6	74.8%
Mining	95	14.6%	10.4%	182.6	83.1	53.1	69.9%
Manufacturing Transportation, Communications, Electric,	323	16.3%	11.1%	119.8	27.9	24.3	77.8%
Gas, and Sanitary Services	44	14.7%	9.9%	157.2	96.1	53.8	69.2%
Wholesale Trade	12	25.1%	14.7%	50.3	21.2	10.4	83.0%
Retail Trade	32	12.0%	9.5%	116.1	97.7	29.5	67.8%
Finance, Insurance, and Real							
Estate	94	9.6%	10.2%	181.3	1,018.0	126.8	48.7%
Services	157	24.0%	9.1%	101.4	17.5	14.6	85.6%

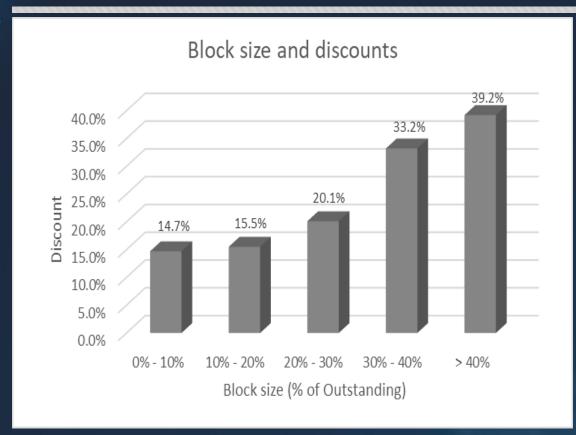
		Quintile			
	1	2	3	4	5
<u>Discount</u>					
High	7.3%	12.8%	20.2%	33.3%	91.3%
Median	3.9%	9.9%	15.8%	26.1%	43.1%
Low	0.0%	7.4%	12.8%	20.5%	33.4%
Company metrics USD'm (Media	an <u>)</u>				
Market Value	195.5	209.9	126.7	112.2	62.0
Revenue	32.5	41.1	22.6	19.2	9.0
Total Assets	110.3	91.8	41.5	24.5	11.9
Net Assets	52.1	45.0	22.1	14.0	6.0
Net income	-6.1%	-5.9%	-6.2%	-23.8%	-38.7%
Volatility	62.7%	65.9%	73.0%	80.8%	104.0%

[&]quot;Lower market values, revenues, assets & higher volatilities = higher DLOMs (and vice versa). Source: Stout guide, BVR

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DLOM - Discounts in RSS vary: quality of company, industry, block size – a closer look at Restricted Stock data



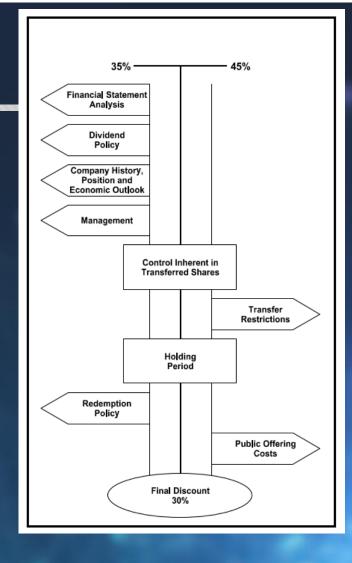
- Discount increases due to greater degree of illiquidity
- Under US dribble out provisions a block of 20% or more would take up to five years to resell after the initial holding period
- Block size of greater than 30% shows magnitude of this
- Largest blocks of restricted stocks (which may require many years to liquidate through public sales) are so illiquid could resemble an investment in a private company

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Source: Stout guide, BVR

Recap on the Mendelbaum factors for DLOM.....

- 1995 U.S. Tax Court case Mendelbaum v Commissioner case involving valuation of shares in Womens apparel store chain in the USA "Big M", judge was faced with two experts at polar opposites 30% and 70% to 75%
- Petitioners Expert, for Mendelbaum family, relied on three Restricted Stock studies, showed an average of 30% to 35%, concluded 30% was appropriate
- Respondents Expert, for the IRS, said shares "virtually illiquid", used same three studies plus seven more including pre-IPO 45%, then concluded higher than both because stock is illiquid, assumed a rate of return of 35% to 40% over 10 to 20 year holding period, concluded 70% to 75% DLOM.
- ➤ Court "unpersuaded" and found "limited refuge" in opinions of both experts. Court found 10 studies used by Respondent's expert more encompassing and used as its benchmark 35% to 45%, then considered the factors to conclude if each factor would result in an "average", "above average" or "below average" discount, concluded that the DLOM would be no more than 30%.



The approach and applicability in each circumstance depends among other things, the facts of the case, scope and purpose of engagement, information available etc.



DLOM – Some criticisms on Restricted Stock Studies are not new, for example in US courts date back more than 20 years ago...

"Respondent relied on third-party studies for her base[discount]. We are unable to analyse the specifics of the respondent's base.."

Estate of McCormick 1995

"The valuation expert simply lists the average discounts observed in several studies, effectively asking us to accept on faith the premise that the approximate average...provides a reliable benchmark for the transferred interests"

Peracchio v Commissioner 2003

"Rather than taking restricted stock sale data and explaining its relation to gifted interests, the expert simply listed the studies and picked a discount based on the range of numbers in the studies"

Temple v US 2006

Not an exhaustive list of cases, shown here purely for information purposes



DLOM - Comparisons of underlying Restricted Stocks to the subject of the valuation...

"The Court finds reliability in the fact that [the IRS's expert] endeavours to understand and incorporate the market dynamics of restricted stock sales... The better method is to analyze the data from restricted stock studies and relate it to the gifted interests in some manner, as [the IRS Expert did]."

Temple v U.S. 2006

US Courts have commented favourably on the approach

(Kosman 1996, McCord 2003, Gross 2005, Heck 2002, Peraccchio 2003, Lappo 2003, Holman 2008)

Implication: where possible, comparison of subject company key metrics as appropriate to RSS data

Not an exhaustive list of cases, shown here purely for information purposes.

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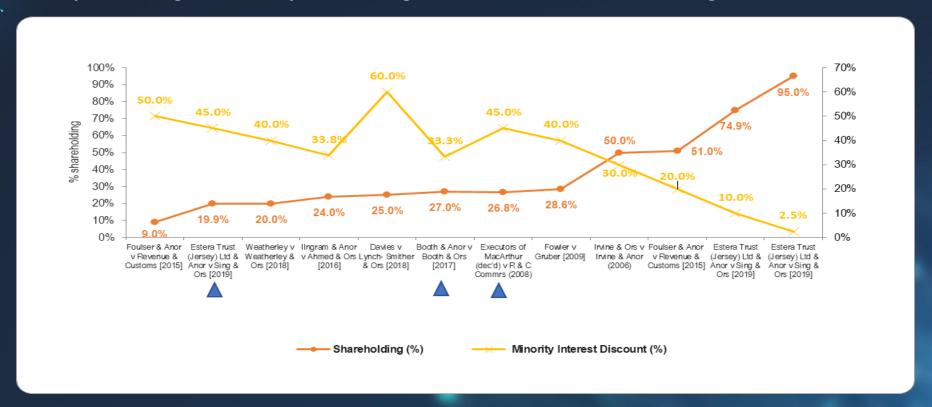


4. Example of Minority discounts in UK Courts



Example of Minority discounts in UK Courts

Example of a range of minority discounts agreed in UK Courts for shareholdings of less than 100%....



Not an exhaustive chart of all cases, an example prepared for information and illustration purposes. Each case is unique and valuations for different purposes impacting on the levels of discounts agreed.



Example of Minority discounts in UK Courts

Case law in the UK, experts with differing discounts and Courts conclusion...

Case name and details	% Shareholding	Appellants' / Petitioners' expert discount	al scount	Settled minority discount
Booth & Anor v Booth & Ors [2017] EWHC 457 (ch) (14	D Booth 19.0%	50.0%	90.0%	33.0%
March 2017) Petitioners - individual minority shareholders Respondent - individual shareholders and CF	C Wilkinson 4.2%	67.5%	90.0%	33.0%
Booth Limited (a scrap metal business)	J Compton 4.2%	67.5%	90.0%	33.0%
Estera Trust (Jersey) Ltd & Anor v Sing & Ors [2019] EWHC	Tranche A - 19.89%	18.7%	60.0%	45.0%
873 (ch) (08 April 2019) Petitioners - individuals and Jersey based Company Respondents - individuals, Jersey based Companies, and	Tranche B - 74.53%	5.1%	10.0%	10.0%
Edwardian Group Limited (owner and manager of 12 hotels)	Tranche C - 25.17%	1.2%	2.5%	2.5%
Executors of MacArthur (dec'd) v R & C Commrs (2008) Sp C 700 Appellant - executors of the late Ian Campbell MacArthur a Senior Partner of the firm MacArthur & Co. Solicitors Respondents - The Commissioners for Her Majesty's Revenue & Customs	26.8% in Cape Wrath Hotel Company Limited which held investments, mainly quoted investmetns and owned a hotel operated by a third party	60.0%	45.0%	45.0%

Not an exhaustive chart of all cases, an example prepared for information and illustration purposes Each case is unique and valuations for different purposes impacting on the levels of discounts agreed.



5. A look at Put Option Models



Put Option Pricing Models for DLOM...

- Useful "starting point" in determining the DLOM
- Designed to produce results that comport with discounts of Restricted Stock Studies
- Key material inputs "holding period" and "volatility"
- > Holding period estimates, consider the following:
 - Period necessary to complete marketing and selling activities (6 months min)
 - Prospects of potential liquidity events
 - Plans for sale of the company
 - Regular or irregular share buy back plans
 - Total or partial sales to outside investors (PE a possible interested party?)
 - Possibility of IPO
- > Volatility estimates are based on guideline public company volatility over estimated holding period

The approach and applicability in each circumstance depends among other things, the facts of the case, scope and purpose of engagement, information available etc.



So what are the common models used for DLOM?

	Characteristics	Typical DLOM for 6 month hold period
Chaffe	European fixed strike	14.0% to 33.5%
Finnerty (modified)	Asian-style average strike	8.0 % to 18.8%
Ghaidarov	Asian-style average strike	8.2% to 25.2%
Longstaff (transformed)	American fixed strike lookback	23.9% to 48.0%



DLOMs from Put Option Pricing Models at different holding periods

Redacted



No model is perfect: use depends on characteristics of the subject company and its shares...

Redacted



6. Discount for Lack of Control ('DLOC')



DLOC - Yes, No, Maybe?

Important points about the Discounts for Lack of Control (DLOC)

- Whole is worth more than the sum of its parts
- Why? Because control enables you to either:
 - Increase cash flows
 - Affect risk
 - Increase growth
- > Types of difference in cash flow may range from non-market levels of director remuneration to differences in the efficiency of business operation
- No empirical studies on DLOC, inverse of Control Premiums paid in the industry
- > In some industries control is valuable in others not so much...



DLOC - Factors to consider when assessing the level of discount...

Some factors may include but are not limited to...

FACTORS TO CONSIDER

Shareholder agreement/ articles

Redacted

Influential minority – blocking power (>25% in the UK) – also consider local law for Country shares are held in

Payment of dividends

Nature of Company, financials and management



DLOC - Factors to consider when assessing the level of discount...

Some factors include but may not be limited to...

Some factors include but may not be innited to				
Factors to consider				
Structure and relation of other shareholders	Redacted			
Voting rights				
Access to and reliability of information				
Prospects for sale of the minority interest				



7. Case Study: quantifying the Minority Interest Discount



Case Study: Minority Interest Discount in dispute...

Key facts of the case:

- Unfair prejudice case: 3 shareholders (2 Petitioners with combined shareholding of either 40% or 15%, and 1 Respondent with shareholding of either 60% or 85%)
- Scope of Valuation: To value of Petitioners shares assuming 40% or 15% shareholding in a commercial property holding company, which held a number of branded 4 star hotels in the UK
- Under long-term management agreements
- Memorandum of Understanding set out the rights of the shareholders, along with a Co-operation Agreement



Case Study continued...

I considered the key terms of the MOU and Co-operation agreement regarding the three shareholders:

- > All three signatories to be in agreement on matters other than of an operational nature
- Petitioners present a "unified front" when voting
- > Respondent restricted from selling his holdings as long a Petitioners are involved in the hotels
- > Two Petitioners had a level of blocking power over each other as well as over the Respondent

Another key issue: intended liquidity event? Yes, at Valuation Date, hotels were for sale and expected to close within 6 months (subject to DD). Indicated that prospects for marketability were high and definitely within 2 years (if the current deal fell through)



Case Study: difference in Minority Interest Discounts...

	Other Expert	My cond Influential minority	lusion Uninfluential minority
Lack of Control (DLOC)	30.0%	8.2%	15.0%
Lack of Marketability (DLOM) Combined Minority	25.0%	6.5%	6.5%
interest discount Combined discount: DLOC is applie	47.5% ed first, DLOM	14.2% is applied seco	20.5%

- DLOC 30%: on out-of-date, non-sector specific data, relevant data shows a materially lower discount
- Did not look at discounts to NAV from REITS (this was a property holding co)
- Did not consider terms of MOU & Co-operation agreement

- DLOM 25%: inappropriate use of average from studies, failure to consider impending sale of hotels at valuation date
- Incorrect use of Finnerty Model (using 10 years as holding period when model only appropriate for up to 2 years, and indeed holding period for subject was 6 months)



8. Concluding suggested tips for robust and supportable Minority Interest Discount

The approach and applicability in each circumstance depends among other things, the facts of the case, scope and purpose of engagement, information available etc.



Suggested tips for a robust and supportable minority interest discount...

- Remember the valuation method applied and the resulting level of value will determine whether both a DLOM and DLOC are required,
 or whether either are required
- > DLOM: Restricted Stock Studies average for estimated holding period, tailored search benchmarking metrics of subject company to those that RSS are issued in, Mendelbaum factors
- > DLOM: Option Modelling use in combination with RSS (key assumptions holding period and volatility), use appropriate models
- ➤ DLOC: Investment co's and Property Holding co's Discount to NAV observed from Closed end funds (Investment Holding co's) & REITS (Property Investment co's), other companies the inverse of Control Premiums observed
- DLOC: Understand Corporations Law in country of Incorporation (what constitutes "influential"): Is the holding an "influential" minority apply a premium to the "uninfluential" minority value, power to block a special resolution has value (in UK 25% holding)
- DLOM & DLOC: Shareholders Agreement and Articles for rights and restrictions (other agreements), if suitable can consider Case Law where appropriate

The approach and applicability in each circumstance depends among other things, the facts of the case, scope and purpose of engagement, information available etc.



Thank you

