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DELOS
dispute resolution

Advanced Module - Market Approach valuations

Content developed for Delos Dispute Resolution

MAKING AN IMPACT THAT MATTERS since 1845

Introduction and objective of the module

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Learning objectives

- Define the Market Approach
- Understand the different levels of value and market multiples
- Recognize and identify the steps in Comparable Companies Analysis
- Recognize and identify the steps in Comparable Transaction Analysis
- Know the pros and cons of using market approach valuations
- Recognize the pitfalls to look out for when using market approach valuations

Recap of introductory module

Recap of introductory module

Overview

We understand from the introductory module that:

- Market approach is a general way of valuing a subject asset by drawing comparisons to similar publicly listed assets.
- It is based on the principle of substitution i.e.; a prudent buyer will pay no more for an asset than the cost to acquire a substitute asset with the same utility
- Similar to income approach, market approach valuation is forward-looking and based on forecasted growth in profitability and associated risks as implicated in the multiples

Methodologies

- Guideline public companies
- Guideline transactions

Key terms

- Total Enterprise value
- Equity value
- Business Enterprise Value (or Operating Value)
- Net debt
- EBITDA

Key valuation multiples

- EV/EBITDA
- EV/EBIT
- EV/Revenue
- Price/Earnings
- Price/Sales

Recap of introductory module

Methodologies

Guideline public companies method

- The guideline public companies method utilises information on publicly-traded comparable companies that have the same or similar operations compared to the subject asset.
- Recent traded multiple of these comparable companies is used to arrive at an indicative value of the subject asset.
- Considering that the share price of the listed comparable companies is real-time, the resulting value from use of guideline public companies method is indicative of the current market prices.

Guideline transactions

- The Guideline transactions method utilises information on transactions involving assets that have the same or similar operations compared to the subject asset.
- Implied multiple based on the purchase consideration of the transactions is used to arrive at the indicative value of the subject asset.
- The implied multiples represent the multiple at the time of the acquisition which may be different than the valuation date.

Recap of introductory module

Key Terms

Key term	Definition
Total Enterprise Value	• The value of the business to all capital providers (shareholders and lenders)
Equity Value	• The value of the business to all of its equity shareholders
Business Enterprise Value (BEV) or Operating value	• Total Enterprise Value adjusted for any non-operating assets and liabilities
Net debt	• The value of the short and long term debt items less any cash or cash equivalents
EBITDA	• Earnings Before Interest, Tax, Depreciation and Amortization • It is a measure of a company’s profitability of the operating business only as it excludes the effect of indebtedness (interest), state-mandated payments (taxes), and costs required to maintain its asset base (depreciation and amortization)
Book value	• Represents the net asset value used as a proxy for carrying value of the subject asset

Recap of introductory module

Valuation multiples

Multiple	Use case	Drawbacks /Limitations
EV/Revenue	Companies with operating losses or low/abnormal income Commonly used for early-stage companies	Two companies with identical revenues may have significantly different margins or growth profiles
EV/EBITDA	Commonly used multiple, whereby EBITDA is commonly referred to as a proxy for cash flow available to the firm Commonly used for income driven companies/ those operating in capital intensive businesses	Not usable for companies having negative EBITDA Does not apply for financial sector companies such as banks and insurance
EV/EBIT	Similar to EV/EBITDA Commonly used for companies in the service Industry	Not usable for companies having negative EBIT Does not apply for capital intensive companies or financial sector companies such as banks and insurance
P/E	Commonly used for companies which have stable earnings	Cannot be used in case of companies with negative earnings Fails to overcome the distortions caused by different accounting policies and capital structures.
P/BV	Particularly used to value asset driven businesses such as banks/insurance companies	Companies have different accounting policies or companies that have few tangible assets

These multiples can either be used on a historical basis or forward basis. In case of forward multiples, the value is still as of the valuation date and the metric i.e., EBITDA, Revenue, Earnings are for a future period

**Level of Value :
Enterprise value
vs Equity value**

Level of value: Enterprise vs Equity

The selection of a valuation multiple is influenced by the level of valuation being derived: enterprise value or equity value.

Enterprise value

- A “debt-free” approach based on the multiples calculated using the enterprise value of the comparable companies
- Eliminates impact of leverage and interest with a focus on operational differences
- Most widely used approach in practice
- EV/Sales, EV/EBITDA, EV/EBIT are examples of enterprise value based multiples

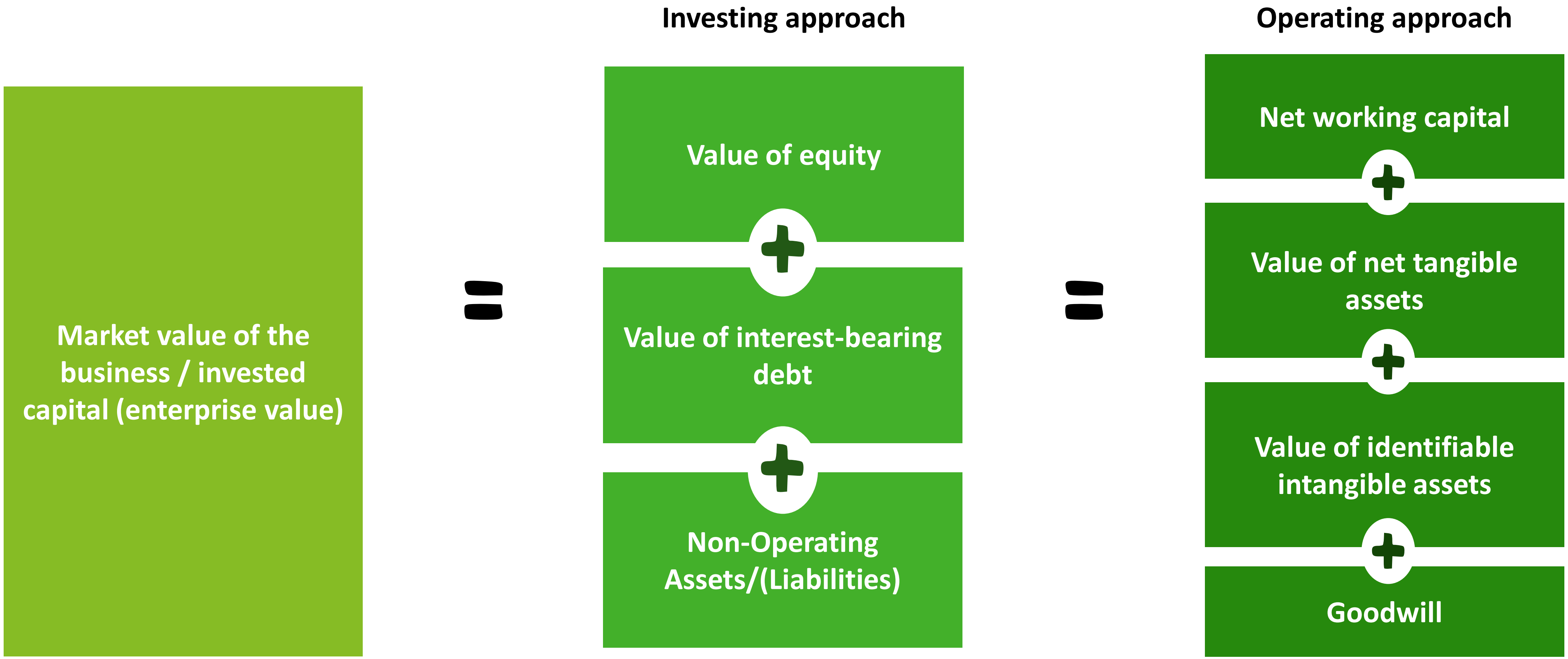
Equity value/ Enterprise value

Equity value

- Based on the market capitalization of the selected comparable companies
- Does not allow one to properly reflect leverage differences
- Usually used where leverage is either zero, low or consistent
- Also used where interest is an operating expense and not a financing expense
- Price/Earnings, Price/Book, Price/Sales are examples of equity value based multiples

Level of value: Enterprise vs Equity

Enterprise value to equity value bridge



Non operating assets

Consideration of non-operating items in the market approach

Non-operating assets and liabilities

- Assets and liabilities which are not used by the company during the normal course of its operation. Such assets or liabilities do not affect the cash flow from operations and are not reflected in the value of the operating entity
- You should carefully consider the need to adjust for non-operating assets as part of your calculations. It typically depends on the level of value (enterprise value or equity value) used for multiple calculation

Examples

- Excess working capital
- Deferred tax asset/liabilities or carried forward tax losses
- Unused land
- Investments in securities / financial instruments
- Spare equipment

Enterprise Value and Equity Value

Multiples commonly used for Enterprise Value and Equity Value

Multiple	Enterprise Value	Equity Value	Industry / Examples of when appropriate
EV/EBITDA	✔	✖	Various (commonly used)
P/E	✖	✔	Various (commonly used)
EV/Revenue	✔	✖	Early-stage loss making businesses
P/BV	✖	✔	Banks and/or Asset heavy businesses
EV/EBIT	✔	✖	Capital intensive business
P/Sales	✖	✔	Early-stage loss making businesses
EV/Reserves and Resources	✔	✖	Resources / Metal & Mining
EV/2P Reserves	✔	✖	Oil & Gas
EV/Hospital beds	✔	✖	Healthcare
EV/Subscriber	✔	✖	Subscriber based businesses such as cable and direct to home, streaming companies

Question

Which is the most used multiple while performing a valuation of banks?

01 **EV/EBITDA**

02 **EV/EBIT**

03 **P/BV**

Question

Which is the most used multiple while performing a valuation of banks?

03 **P/BV**

Question

Which of these assets/liabilities form part of non operating liabilities

01 Inventory

02 Trade payable

03 Investment in securities

Question

Which of these assets/liabilities form part of non operating liabilities

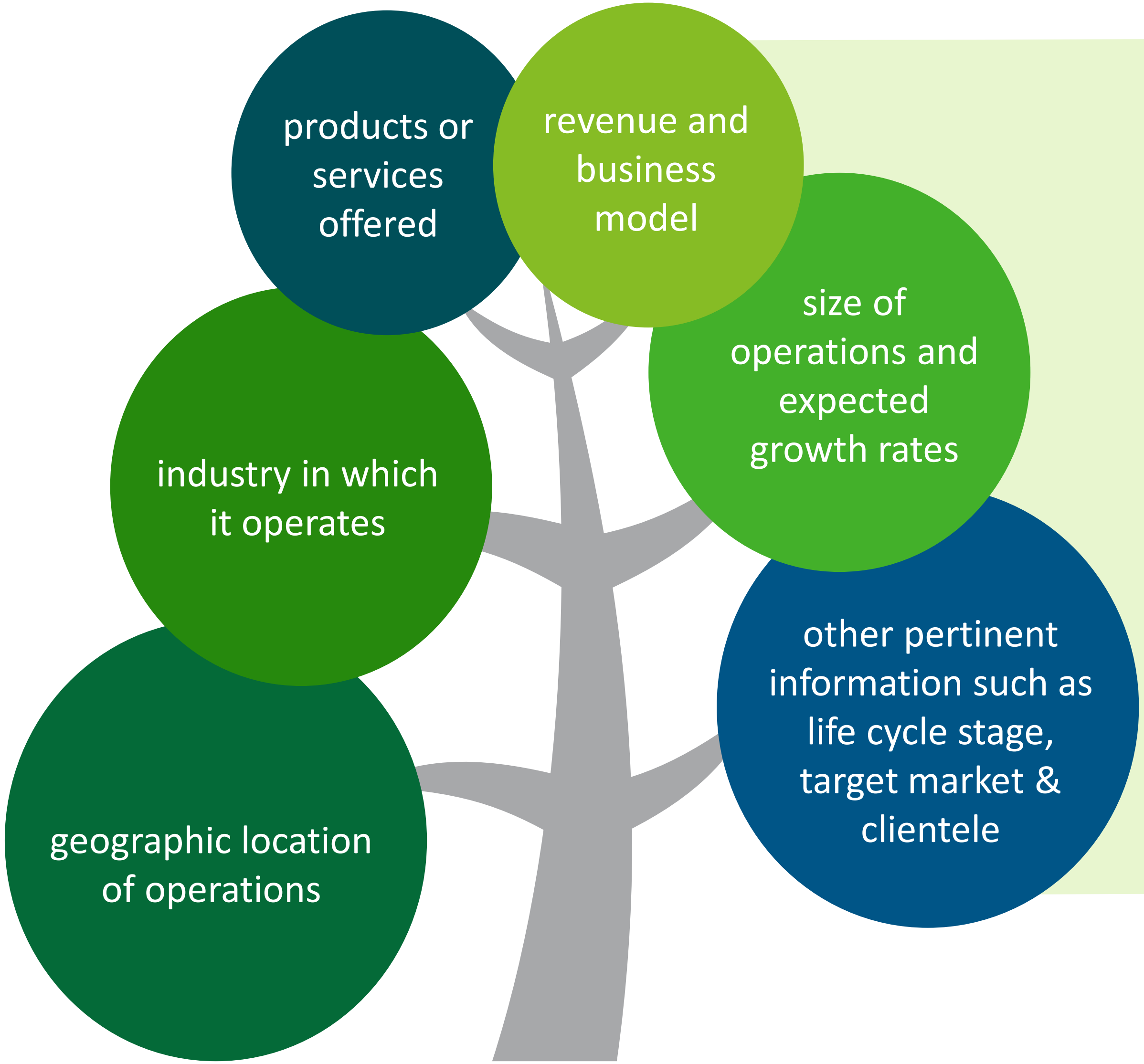
03

Investment in securities

Selection criteria of comparable companies

Selection criteria for comparable companies

Understanding operations of subject company

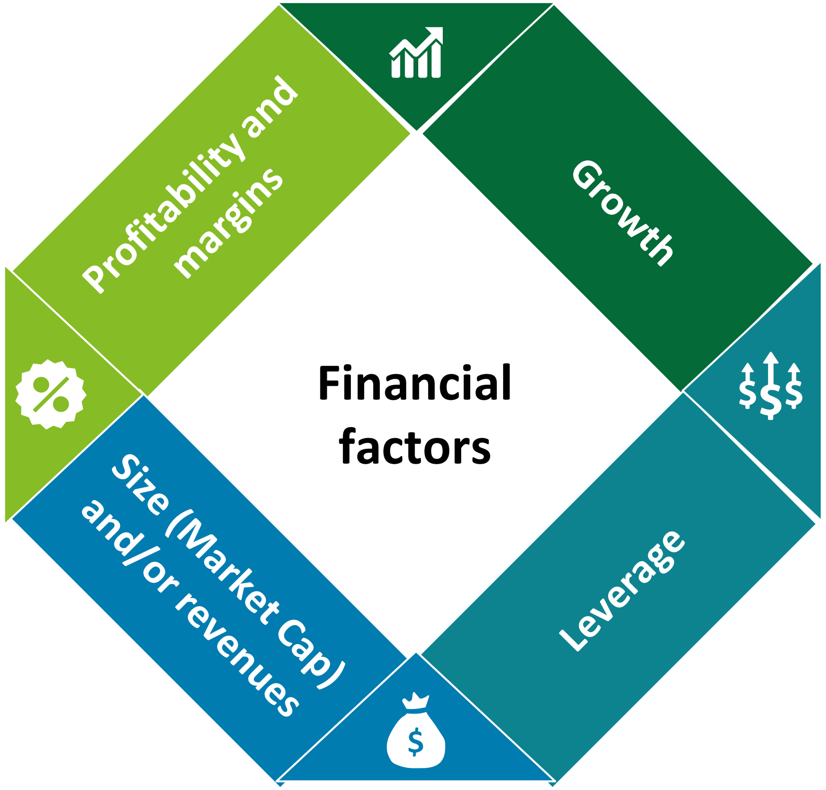


Frequently used sources for obtaining an understanding of the subject company include:

- annual and quarterly financial reports including notes to financials and MD&A
- company's website and press releases
- analyst reports and company profiles on S&P Capital IQ
- Databases such as Bloomberg, Capital IQ, Mergermarket etc.
- other sources including industry reports and discussions with management at the company

Selection criteria for comparable companies

Key consideration while identifying and selecting comparable companies



Selection criteria for comparable companies

Geographic location

Unites States and Canada

Europe

Asia

Developed markets

Emerging markets

Local market relevant to subject company

Selection criteria for comparable companies

Liquidity considerations

What is liquidity?

- Liquidity is the rate at which a stock can be bought/sold in the market without significantly affecting its price
- In other words, it is the rate at which it can be converted to cash
- Market liquidity is different than accounting liquidity where the liquidity is assessed based on company's ability to fulfil its financial obligations

Liquidity factors

- **<u>Float</u>**: A stock float is the total number of shares that are available for public investors to buy and sell. It is calculated as public float as a percentage of total shares outstanding.
- **<u>Velocity</u>**: Velocity represents the total number of shares traded as a percentage of public float available over a particular period of time.
- **<u>Days traded</u>**: Days traded represent the total number of days on which a particular stock was traded as a percentage of total available trading days in a year.

Selection criteria for comparable companies

Liquidity considerations

Company Name	Average daily traded Volume	Total annual traded volume	Public Float	Shares Outstanding	Public Float / Shares Outstanding	Total traded Volume / Public Float	Total traded Volume / Shares Outstanding	Days traded
Company A	3,000	754,000	210,000	309,000	*68%*	*445%*	*263%*	*101%*
Company B	1,000	160,000	895,000	1,231,000	*73%*	*19%*	*13%*	*96%*
Company C	50	7,000	50,000	4,200,000	*0.01%*	*0%*	*0%*	*20%*

Company A

More than three fourths of shares are available for trading

Days traded velocity is high indicating strong liquidity position

Company B

More than three fourths of shares are available as public float

However, only 19% of these stocks were traded (low velocity).

Company C

Only 0.01% of the total shares outstanding are available for trading

The velocity stands at 0% and days traded of 20%, indicating illiquid shares

Selection criteria for comparable companies

EV and related considerations

Market price	• Can be estimated based on the quoted market price as at a particular date or the average price over a defined period
Number of shares	• Fully diluted number of shares should be considered. • Identify and account for stock dividends, bonus shares or stock splits
Market Capitalisation	• Derived as the multiplication of market price and number of shares as at a particular date
Debt	• Ensure consistency in classification of debt included in enterprise value calculation across all comparable companies • Generally, include all interest-bearing debt and lease liabilities
Cash	• Cash and cash equivalents is by default assumed to be surplus cash that is not required for ongoing operations should be considered while computing net debt
Other adjustments	• Differences in accounting policy such as revenue/cost recognition, lease accounting, etc. can cause differences in the comparable companies. • Different financial year ending across geographies may cause differences in the period of multiple. Accordingly, care should be taken to consider multiple for consistent period across comparable companies. • One-time capital expenditures/working capital requirements should be adjusted to consider a normalized view

Selection criteria for comparable companies

Multiple analysis

- Average or median multiples should be relied on only in the case there is low dispersion within the set of trading multiples
- Can place a higher reliance on the observed multiple of the “most comparable” companies in the set
- Can consider a range of multiples depending on the subject company’s size, growth and profitability measures
- Reasons for outliers (extremely high or low multiples) and negative multiples need to be examined and/or excluded from the company set
- Tiers/subsets can be assessed segregating companies based on their level of comparability with the subject company
- Consider the relation between historical and forward multiples. When using forward multiples, ensure that the financial metrics for companies can be reliably projected
- Consistency between period of revenue/EBITDA being between comparable companies and subject asset as well as ensuring multiple for similar period across comparable companies i.e., calendar year over financial year

Selecting and adjusting a range of valuation multiples

Selection criteria for comparable companies

Trading trend in multiples

How can we adjust for the external one-off/abnormal macro events while selecting the multiples?

We must take the sustainable approach into account by selecting normalized/sustainable earnings/multiples.

Long term average trends can be considered instead of valuation date multiples/metrics to avoid temporary fluctuations.

A specific event may have varying levels of impact on different geographies. Selection of comparable companies should be carefully assessed to check for such impact.

Forward multiples can be used based on expected recovery period and availability of information.

Question

Which of the following does not seem to be an operational factor to consider while selecting comparable companies?

01 **Industry**

02 **Shareholders/Promoters of the company**

03 **Products and Services offered**

Question

Which of the following does not seem to be an operational factor to consider while selecting comparable companies?

02

Shareholders/Promoters of the company

Question

Which of the following is a factor while assessing the liquidity of the companies ?

01 **Operations**

02 **Nature**

03 **Traded Velocity**

Question

Which of the following is a factor while assessing the liquidity of the companies ?

03 **Traded Velocity**

Selection criteria of comparable transactions

Selection criteria for comparable precedent transactions

What?

- Market approach to determine notional value of the business
- Primarily consists of determining implied/deal multiples based on precedent M&A transactions

How?

- Using empirical market data from open market transactions
- Consideration should be given to the subject company's growth profile and associated risk factors when assessing comparable company transactions for benchmarking purposes

Why?

- Deal multiples may provide a more reasonable market driven benchmark if transactions are comparable

When not to use?

- When the transaction information is not readily or completely available; and
- Difficulty in obtaining target company data

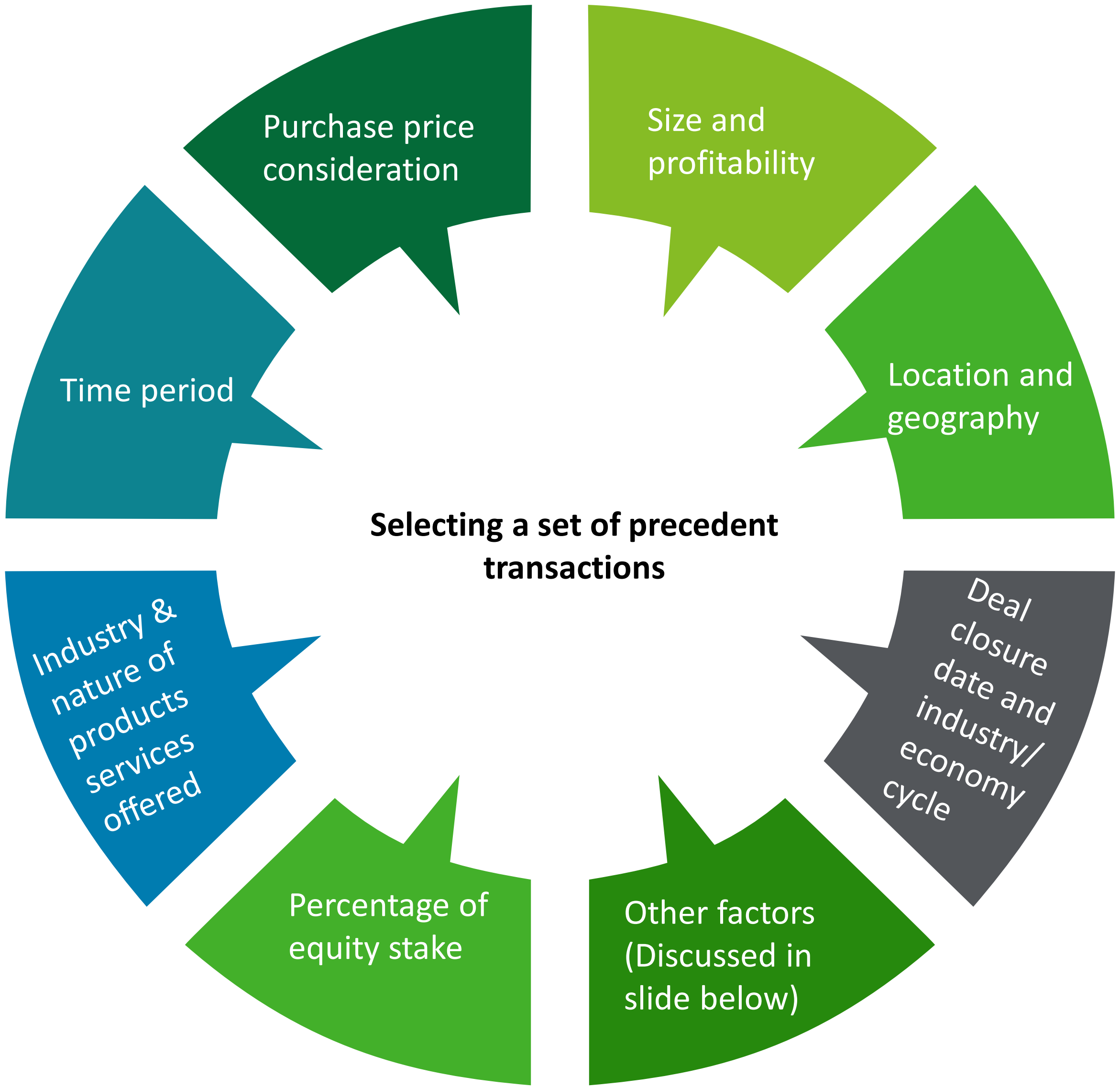
Selection criteria for comparable precedent transactions

Key steps in completing analysis

1. Identifying and selecting comparable transactions
2. Analysing /normalising financial metrics for selected comparable transactions
3. Selecting and adjusting range of valuation multiples
4. Applying discount or premium to selected multiples as appropriate
5. Applying selected range of adjusted market multiple to subject company

Selection criteria for comparable precedent transactions

Identifying and selecting comparable transactions



Selection criteria for comparable precedent transactions

Additional considerations for selection of comparable transactions

Competitive position

Consider whether or not the transaction is at arm’s length basis or if there was any compulsion to act or negotiate under distress? In these cases, the multiples may not truly reflect the fair value of the targets and accordingly may not be reliable.

Nature

Consider whether the transaction was a share purchase transaction or an asset purchase transaction

Assess if the consideration represents enterprise value or equity value

Check if the transaction was financial or strategic

Controlling interest

Considering if the transaction was for 100% of the shares or for another ownership interest

Non-controlling interest is typically exchanged at a discount and may require an adjustment and/or premium for control

Other aspects

Financial metric used for estimating the multiple should be normalized for any one-off items.

Wider economic and market conditions may affect the multiples significantly. Such events and their impact on multiples should be assessed when considering transactions.

Transaction multiples may also include premiums on account of specific synergies from the transaction. Such synergies may include the revenue/cost benefit, market/supplier advantage, etc. Such premiums may not apply to subject asset and may accordingly distort the multiples.

Selection criteria for comparable precedent transactions and considering adjustments

- Average or median multiples should be relied on only in case there is low dispersion within the set of transaction multiples
- Ensure that a correct valuation basis (EV or equity) has been used while computing the multiples
- Discount for lack of marketability may need to be adjusted depending on the nature of target companies
- Control premium/discount may be needed depending on percentage sought for transactions and level of stake being valued for the subject company
- Reasons for outliers (extremely high or low multiples) and negative multiples need to be examined and/or excluded from the transactions set
- Checks should be conducted to assess whether transactions include any value from synergies, or acquirer specific discounts/premiums.
- Can place a higher reliance on the observed multiple of the “most comparable” transaction in the set
- More reliance should be placed on most recent transactions, since transaction multiples also reflect the underlying economic environment existing at the time to the transaction

Selecting a range of multiples

Selection criteria for comparable precedent transactions

Key points to remember

Most transactions would not have sufficient level of details to calculate the relevant financial ratios.

Transaction date may not be the same as the valuation date. It is better to restrict the screening to recent transactions and cross-checking the movement in multiples in the selected time period.

Most often you would only find a small number of comparable transactions with sufficient information to determine a peer set multiple for use as part of valuation analysis

Ensure the shortlisted transactions are at an arm's length basis

Consider making potential adjustments for the control and marketability premiums and discounts embedded in the transaction price and multiples

There could be potential synergies included in the transaction price and multiples which may skew the multiples and distort average/median

Selection criteria for comparable precedent transactions

Key points to remember

Do we consider the impact of one-off external events while selecting the multiples for a comparable transaction screening?

Yes! We can compare the transactions completed prior to any such event to transactions completed thereafter to check if there are any significant differences.

Similar to comparable companies, multiple and earnings trends should be normalized to exclude any temporary fluctuations.

Recovery period should also be considered while assessing value on a normalized/sustainable basis

Question

Implied Multiples for transactions reflect the multiple as at:

01 **The date of the acquisition**

02 **The Valuation date**

03 **A future date**

Question

Implied Multiples for transactions reflect the multiple as at:

02 **The Valuation date**

Benchmarking for like-to-like comparison and related adjustments

Like-for-like benchmarking

Adjustments to selected companies / transactions to improve comparability

Selected range of multiples may need to be further adjusted for qualitative and quantitative differences between the subject company and the comparable companies considered:

Qualitative considerations and adjustments

- Management experience, depth, commitment, etc.
- Accounting and risk management practices
- Technological advancement
- Nature, type, uniqueness, and diversification of products and services
- Operational risks
- Ability to protect intellectual property
- Maturity of the business and/or relative stage of development
- Nature and type of customers and suppliers
- Relationships with lenders

Quantitative considerations and adjustments

- Non-recurring/one-off items
- Growth trends in revenue and profits
- Relative size of capital
- Capital structure (e.g. debt versus equity)
- Tangible asset backing
- Return on tangible capital employed
- Financial risk, as estimated by the level of debt included in the capital structure
- Liquidity of the company (e.g., quick and current ratios)
- Dividend paying ability
- Off-balance sheet assets and liabilities

In practice, these factors are difficult to assess as access to management of comparable companies may not be possible

Like-for-like benchmarking

Adjustments to selected companies / transactions to improve comparability

Ensure consistency in the level of revenue and EBITDA (or any other metric) between comparable companies and subject company

Let’s consider an example:

Company A

- Sales on principal basis
- Revenue = value of traded goods

Company B

- Sales on commission basis
- Revenue = commission earned on traded goods

Relatively lower ⟵ **EV/Revenue Multiple** ⟶ Relatively higher

Like-for-like benchmarking

Applying discount or premium to selected multiples

After applying the selected valuation multiples, adjustments to the implied value may be required for discounts and premiums which arise due to:

Control: The power to direct the management and policies of a business enterprise, influence decisions and the cash flows of the subject company.

Marketability: The ability to quickly convert an asset to cash or sell business at minimal cost.

Methodology >	Income Approach / CCF	Market Approach - CCA	Market Approach - CTA
Control premium / discount for lack of control			
Default position / Inherent levels	Controlling position	Non-Controlling position	Depends on the percent sought
When valuing controlling stake:	No adjustments needed	Apply control premium	Apply control premium if percent sought of transactions is <50%
When valuing minority stake:	Apply discount for lack of control	No adjustments needed	Apply discount for lack of control if the percent sought of transactions is >50%
Marketability discounts			
Default position	Marketable	Marketable	Depends whether the transaction companies are public/private
When valuing non-marketable instruments/private companies	Apply discount for lack of marketability	Apply discount for lack of marketability	Apply discount for lack of marketability if the targets in the transactions were publicly listed

Question

While applying a 2-year forward EV/EBITDA multiple to the Subject Company's 2-year forward EBITDA, what would be the appropriate discounting?

01 **No discounting needed**

02 **Apply to EV**

03 **Apply to final equity value**

Question

While applying a 2-year forward EV/EBITDA multiple to the Subject Company's 2-year forward EBITDA, what would be the appropriate discounting?

01

No discounting needed

Learning by applying

An example – 7-Eleven Inc

Learning by applying

Income Statement

Operating income

Non -operating income

Non -operating expense

Consolidated quarterly statements of income

(Millions of yen)

	Six Months Ended August 31, 2021	Six Months Ended August 31, 2022
	Amount	Amount
Revenues from operations	**3,646,449**	**5,651,505**
Net sales	2,992,507	4,897,411
Cost of sales	2,402,566	4,084,052
Gross profit on sales	**589,941**	**813,359**
Operating revenues	653,941	754,094
Gross profit from operations	**1,243,882**	**1,567,453**
Selling, general and administrative expenses	1,057,712	1,332,685
Operating income	**186,170**	**234,767**
Non-operating income	**6,807**	**5,210**
Interest income	1,945	1,440
Equity in earnings of affiliates	1,392	1,439
Other	3,469	2,331
Non-operating expenses	**19,527**	**20,214**
Interest expenses	5,640	6,108
Interest on bonds	7,469	9,717
Commitment fee	3,185	400
Other	3,232	3,988
Ordinary income	**173,450**	**219,763**

Source: Seven and I Holding – Audited Financial Statements

Learning by applying

Balance Sheet

(Millions of yen)

	February 28, 2022	August 31, 2022
	Amount	Amount
ASSETS		
Current assets	2,604,774	2,830,240
Cash and bank deposits	1,420,653	1,438,746
Call Loan	–	10,000
Notes and accounts receivable - trade, and contract assets	365,746	434,875
Trade accounts receivable - financial services	91,662	90,273
Merchandise and finished goods	246,571	327,015
Work in process	51	50
Raw materials and supplies	2,193	2,010
Prepaid expenses	71,249	77,666
ATM-related temporary payments	107,883	85,968
Other	306,593	372,643
Allowance for doubtful accounts	(7,829)	(9,009)
Non-current assets	6,132,658	7,668,278
Property and equipment	3,232,347	4,424,527
Buildings and structures, net	1,527,898	1,667,527
Furniture, fixtures and equipment, net	436,377	481,470
Land	1,119,796	1,222,571
Lease assets, net	7,240	6,376
Right-of-use assets, net	10,801	894,905
Construction in progress	110,725	133,256
Other, net	19,506	18,420
Intangible assets	2,140,002	2,464,926
Goodwill	1,741,604	2,031,683
Software	213,462	243,812
Other	184,935	189,430
Investments and other assets	760,308	778,824
Investments in securities	220,615	243,914
Long-term loans receivable	14,633	14,203
Long-term leasehold deposits	330,285	322,737
Advances for store construction	542	727
Net defined benefit asset	86,217	88,440
Deferred income taxes	43,539	45,583
Other	67,499	66,167
Allowance for doubtful accounts	(3,024)	(2,949)
Deferred assets	1,846	1,476
Business commencement expenses	1,353	1,063
Bond issuance cost	492	412
TOTAL ASSETS	8,739,279	10,499,995

(Millions of yen)

	February 28, 2022	August 31, 2022
	Amount	Amount
LIABILITIES		
Current liabilities	2,480,725	3,010,548
Notes and accounts payable, trade	483,908	645,531
Short-term loans	140,146	136,815
Current portion of bonds	60,000	210,551
Current portion of long-term loans	121,280	136,423
Income taxes payable	22,716	22,722
Accrued expenses	235,274	261,940
Contract liabilities	–	192,934
Deposits received	223,146	158,132
ATM-related temporary advances	73,901	48,436
Lease obligations	20,409	127,457
Allowance for sales promotion expenses	17,649	1,250
Allowance for bonuses to employees	13,937	14,470
Allowance for bonuses to Directors and Audit & Supervisory Board Members	349	248
Allowance for loss on future collection of gift certificates	602	-
Provision for sales returns	34	-
Deposits received in banking business	787,879	784,571
Other	279,489	269,060
Non-current liabilities	3,110,820	3,854,437
Bonds	1,582,906	1,576,340
Long-term loans	994,399	995,132
Deferred income taxes	109,825	163,383
Allowance for retirement benefits to Directors and Audit & Supervisory Board Members	569	496
Allowance for stock payments	4,272	4,073
Net defined benefit liability	12,702	14,845
Deposits received from tenants and franchised stores	51,422	51,237
Lease obligations	36,527	844,073
Asset retirement obligations	130,456	143,100
Other	187,738	61,754
TOTAL LIABILITIES	5,591,546	6,864,986
NET ASSETS		
Shareholders' equity	2,767,517	2,880,210
Common stock	50,000	50,000
Capital surplus	408,645	408,645
Retained earnings	2,319,155	2,431,429
Treasury stock, at cost	(10,282)	(9,864)
Total accumulated other comprehensive income	213,438	583,636
Unrealized gains (losses) on available-for-sale securities, net of taxes	37,696	43,011
Unrealized gains (losses) on hedging derivatives, net of taxes	4,270	5,201
Foreign currency translation adjustments	157,570	523,274
Remeasurements of defined benefit plans	13,901	12,149
Subscription rights to shares	56	49
Non-controlling interests	166,719	171,112
TOTAL NET ASSETS	3,147,732	3,635,009
TOTAL LIABILITIES AND NET ASSETS	8,739,279	10,499,995

Learning by applying

Balance Sheet

Operating Assets include:
- Cash and bank deposits
- Notes and accounts receivable
- Prepaid expenses
- Raw materials and supplies
- Merchandise and finished goods
- Fixed Assets such as Buildings, Furniture & fixtures, Land, Right-of-use assets

Non-operating Assets include:
- Investment in securities
- Deferred income taxes

Intangible Assets include:
- Goodwill
- Software

Operating Liabilities include:
- Notes and accounts payable
- Accrued expenses
- Short term loans
- Current provisions and allowances
- Income taxes payable

Debt include:
- Bonds
- Long term loans
- Lease obligations

Non-Operating Liabilities include:
- Allowance for retirement benefits to Directors
- Deposits received from tenants and franchised stores
- Allowance for stock payments
- Asset retirement obligations

Learning by applying

An example – comparable company analysis

Comparable companies' metrics:

In USD millions		Market	Total	Enterprise	TTM Financials			EV as a multiple of TTM:			Liquidity		
Ticker	Company Name	Cap	Debt	Value (EV)	Revenue	EBITDA	EBIT	Revenue	EBITDA	EBIT	Float %	Velocity %	Number of days traded%
TSE:3382	Seven & i Holdings Co., Ltd.	35,250	29,048	53,466	77,583	6,357	3,166	0.8x	9.0x	17.8x	83%	76%	98%
TSX:ATD	Alimentation Couche-Tard Inc.	44,115	9,359	51,224	67,889	5,210	3,806	0.8x	9.9x	13.5x	81%	35%	100%
ENXTAM:AD	Koninklijke Ahold Delhaize N.V.	27,399	19,630	42,927	83,119	6,666	3,646	0.5x	6.7x	12.2x	100%	75%	103%
LSE:TSCO	Tesco PLC	21,464	18,349	34,175	74,663	5,174	3,403	0.5x	6.6x	10.1x	97%	73%	100%
NasdaqGS:CASY	Casey's General Stores, Inc.	7,963	1,673	9,594	14,225	872	561	0.7x	11.6x	18.7x	100%	171%	100%
LSE:SBRY	J Sainsbury plc	5,487	8,940	13,609	36,912	2,556	1,265	0.4x	5.5x	11.1x	72%	96%	100%
TSE:2651	Lawson, Inc.	3,328	3,255	3,304	6,010	943	356	0.6x	3.5x	9.2x	44%	258%	98%
SGX:D01	DFI Retail Group Holdings Limited	3,681	4,028	7,484	8,962	977	124	0.8x	7.7x	60.6x	22%	68%	100%
KOSE:A282330	BGF retail CO., LTD.	2,069	14	1,633	5,550	482	171	0.3x	3.5x	9.9x	46%	129%	98%
KOSE:A007070	GS Retail Co., Ltd.	1,936	2,475	4,220	8,321	718	186	0.5x	6.1x	23.5x	41%	142%	98%
ENXTPA:CO	Casino, Guichard-Perrachon S.A.	1,405	15,568	17,977	33,950	2,588	1,307	0.5x	7.2x	14.3x	36%	228%	103%
ENXTPA:RAL	Rallye SA	170	18,695	21,757	33,957	2,944	1,502	0.7x	7.7x	15.0x	42%	51%	103%
	Average	9,745.6	9,283.2	17,550.0	34,195.5	2,201.5	1,486.6	0.6x	6.6x	17.2x	61.9%	121.0%	100.4%
	High* (third quartile)	17,057.4	18,348.8	29,225.5	67,888.7	4,515.0	3,379.5	0.7x	7.7x	15.9x	97.0%	173.7%	103.2%
	Median - All	3,278.5	9,359.4	12,277.5	33,950.4	1,848.2	1,280.6	0.5x	6.4x	13.4x	45.8%	96.9%	100.0%
	Low* (first quartile)	1,821.6	2,475.4	3,952.8	8,320.6	683.3	202.4	0.4x	5.2x	10.3x	40.6%	64.7%	98.4%

Potential outliers to look out for

Source: S&P Capital IQ

Learning by applying

An example – comparable company analysis

JPY, in m	Low	High
Selected maintainable EBITDA	468,346	468,346
Selected EBITDA multiple	6.1x	6.8x
Enterprise value	2,863,423	3,164,836
Add/(Less): Surplus cash / (Net Debt)	(2,588,045)	(2,588,045)
Equity value, at 100% ownership level	275,378	576,791
Stake: 20%	20.0%	20.0%
Equity value, at 20% ownership level	55,075	115,358
Exchange rate	0.007	0.007
Equity value in USDm	**386**	**807**

Learning by applying

An example – comparable transaction analysis

Comparable transaction' metrics:

In USD millions

Target	Buyer	Target country	% Sought	Target Share Price	Implied EV	Implied multiples EV/ EBIT	EV/ EBITDA	EV/ Sales	P/S	P/BV	P/E
SONAE MC, SGPS, S.A.	Camoens Investments S.á r. l	Portugal	*25.0%*	NA	4,727.2	15.0x	8.8x	0.8x	0.4x	3.0x	14.4x
FamilyMart Co., Ltd.	ITOCHU Corporation	Japan	*15.6%*	16.6	16,057.9	29.1x	6.6x	3.4x	2.3x	1.9x	44.1x
FamilyMart UNY Holdings Co.	ITOCHU Corporation	Japan	*8.6%*	89.1	14,083.2	22.8x	11.7x	1.2x	1.1x	2.5x	35.8x
BGF retail CO., LTD.	BGF Co., Ltd.	South Korea	*25.6%*	196.0	3,037.3	20.5x	12.1x	0.6x	0.6x	9.4x	21.7x
Average						21.9x	9.8x	1.5x	1.1x	4.2x	29.0x
Median						21.7x	10.2x	1.0x	0.9x	2.8x	28.7x
High						29.1x	12.1x	3.4x	2.3x	9.4x	44.1x
Low						15.0x	6.6x	0.6x	0.4x	1.9x	14.4x

Source: S&P Capital IQ

Learning by applying

An example – comparable transaction analysis

JPY, in m	Low	High
Selected maintainable EBITDA	468,346	468,346
Selected EBITDA multiple	9.7x	10.8x
Enterprise value	4,559,600	5,039,558
Add/(Less): Surplus cash / (Net Debt)	(2,588,045)	(2,588,045)
Equity value, at 100% ownership level	1,954,911	2,470,092
Stake: 20%	20.0%	20.0%
Equity value, at 20% ownership level	390,982	494,018
Exchange rate	0.007	0.007
Equity value in USDm	**2,737**	**3,458**

Pros & Cons of using the market approach

Pros / Cons of using market approach

Benefits

- Straight forward approach- Recommended for minority shareholders without access to the company's business plans / projections. Historical and forecast data can be used for market approach whilst income approach needs projections.
- Utilizes up-to-date market pricing, which best reflects current investor sentiment, industry outlook and performance expectations, and prevailing economic/market conditions.
- Publicly-traded prices represent actual, real-world prices that investors are willing to pay for companies that could be considered an alternative investment to the subject company.

Cons

- Public companies may lack direct comparability to the subject company in several respects (e.g., public companies are often larger, have greater access to capital, and can be more diversified in terms of markets served and products/services offered).
- It is not a replacement of income approach which is a better reflection of intrinsic value.

Potential pitfalls/limitations to look out for

Market approach is prone to selection bias as the selection process of companies and transactions is subjective

Degree of comparability for comparing companies' business models may be limited:
For example: private vs public, stage of development, maturity level and capital expenditure cycles

Considering the multiple of comparable companies implies that the subject asset will grow in the forecast period at a pace similar to the comparable companies. However, in case subject asset is projected to grow at a rate higher than the comparable companies, the value from accelerated growth is not captured in the multiple

Lack of access to management to discuss the operations of the business and its future may impact/limit future considerations in the value estimated using market approach

Caution should be exercised to avoid forced comparison for example, if the target company has low/negative earnings use of revenue multiple as an alternative may not be accurate when most of the comparable companies are profitable in nature

Comparable companies could have different capex/leasing profiles and therefore different payables which may affect the multiple.

Summary of key concepts

Summary

- Market approach determines asset value by comparing it to identical or comparable (that is, similar) assets for which price information is available.
- The primary focus is on calculating multiples and other financial ratios based on comparable companies.
- As this is a relative approach, it can be used as a strong cross check to an intrinsic valuation exercise based on discounted cash flows.
- Comparable company analysis is performed as of a specific date, taking into account size, geographic location, industry, and operations. However, these can still be varied and are subject to further examinations.
- Comparable transactions are as of a specific date, and it is preferable to select recent transactions in order to corroborate the multiple.
- It is critical to standardize/normalise the multiples and account for discounts and premiums.
- The market approach has the major advantage of being relatively quick and best suited for minority shareholders who do not have access to management or detailed financial forecasts. However, this has its own set of limitations.
- This brings us to the end of this training course: Advanced Module of Market approach valuations. There are some additional advanced techniques of market approach valuations such as regression analysis to gauge the correlation of comparable multiples with various fundamental financial ratios, but such methods are beyond the scope of this training exercise.

Meet the team

Rana is a Senior Partner in Deloitte's Forensic practice and has over 17 years of experience with Deloitte, across Audit, Valuation and Forensic services. She led a number of high-profile fraud and litigation matters in the Middle East and the UK. She also leads the Forensic public sector practice in the Middle East.
Rana has extensive experience working with in-house legal counsel, external counsel, and key business stakeholders on high profile investigations and disputes. Rana has provided expert evidence numerous times in a wide variety of forums.

Chris is a partner in Deloitte's forensic practice specialising in dispute assignments. He is a Fellow of the Institute of Chartered Accountants in England and Wales ("ICAEW") and holds a Joint Honours Bachelor of Arts degree from Durham University. He has specialised in forensic accounting since 1996 and has a breadth of experience in arbitration, determination, expert witness, fraud and investigation work.

He is a Member of The Expert Witness Institute, the Academy of Experts, and the Chartered Institute of Arbitrators, the Society of Construction Law. He also is a practising arbitrator, determiner and mediator. Chris has been included as a leading Expert Witness by Who's Who Legal (guides that are compiled using independent research with clients and peers) for International Arbitration Expert Witnesses, Commercial Litigation Expert Witnesses, Forensic Accounting and Investigations Forensic Accountants.

He has given expert evidence in the UK and overseas on over 30 occasions, including in the High Court, Criminal Court, Family Court, Arbitrations (domestic and international), Tribunals, and adjudications. He has also led a number of high-profile accounting investigations that have led to him appearing in front of public committees and in court prosecutions.

Faiq is an experienced Director in Deloitte's valuation and modeling team in the Middle East. He focuses on portfolio valuation services and has over 15 years of experience in providing valuation advice to sovereign wealth funds, private equity clients, large family enterprises, corporates, law firms and regulatory bodies.

Faiq's experience extends across a range of industries. He has performed valuations for a variety of purposes including general advice on valuation, pricing and negotiation work as part of proposed acquisitions and/or disposals and acting as independent advisor to shareholders in issuing fair and reasonable opinions in relation to disputes; and valuation of intangible assets for financial reporting valuations.

Meet the team

Manisha is a Manager in Deloitte's valuation team in the Middle East and has about 8 years of professional experience in Asia and in the Middle-East in financial advisory services and business valuations across a spectrum of engagements, covering financial due diligence, financial modelling, valuation of businesses for M&A mandates and financial reporting purposes, valuation of complex instruments and intangible assets for purchase price allocation.

Manisha has been recently involved in valuation across sectors such as Oil & Gas, E-commerce, Consumer services, and Private Equity. Manisha is a chartered accountant and holds bachelors in Commerce.

Mohit is a Manager in Deloitte Forensic Middle East. Mohit has approximately 10 years of experience in advising legal counsels in commercial and matrimonial disputes including calculating quantum of losses and damages as well as business valuations in a variety of industries. He holds a bachelors in Business Economics and the Ordre des Experts-Comptables & ACCA joint certificate in business valuations. He is also member of the Association of Chartered Certified Accountants and has complicated .

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