



Challenges in Valuing Investment Property

Okky Danuza

INDONESIA - MAPPI

AVA Congress 2023, Kuching Malaysia



Property Investment & Investment Property

Investment Property

- Income Producing Property
- Investment Grade Property
- Commercial Property

Valuation Approach

Market Approach

Difficult to get
Comparable
Data

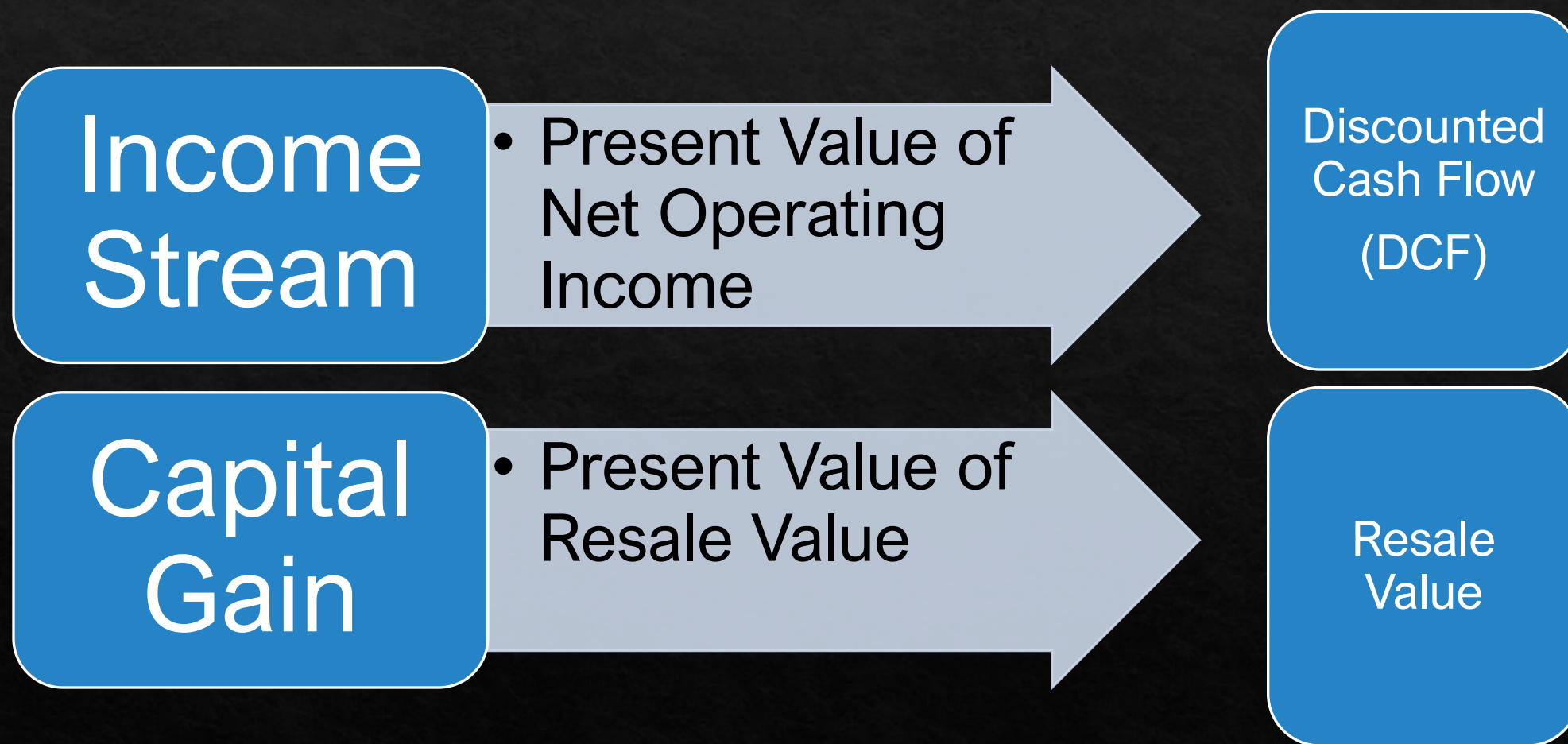
Income Approach

Most suitable
for Commercial
Property

Cost Approach

Still used by
Investor/Owner
especially to
develop new
property

Financial Motive of Investment >> Value of The Investment



Non Financial Benefit of Property Investment



Pride of
Ownership



Personal Use
& Occupancy



Personal
Control



Discounted Cash Flow Model

		Y1	Y2	Y3	Yn	Yn+1
Cash In	A	A1	A2	A3	An	An+1
Cash Out	B	B1	B2	B3	Bn	Bn+1
Net Operating Income	$C = A - B$	C1	C2	C3	Cn	Cn+1
Discount Rate						
Present Value of NOI 1-n	ΣD_{1-n}	D1	D2	D3	Dn	Dn+1
Present Value of Terminal Value	E					TV
Property Value	$F = \Sigma D + E$					



Discounted Cash Flow Model

Description	Column2	Y1	Y2	Y3	Y4	Y5	Yn+1
Cash In	5%	100.00	105.00	110.25	115.76	121.55	127.63
Cash Out	5%	80.00	84.00	88.20	92.61	97.24	102.10
Net Operating Income (NOI)		20.00	21.00	22.05	23.15	24.31	25.53
							5%
DR	10%	0.91	0.83	0.75	0.68	0.62	
Present Value of NOI		18.18	17.36	16.57	15.81	15.09	
Sum of PV.NOI	83.01						
Capitalization Rate							5%
Terminal Value (TV)							510.51
PV. TV	316.99						
Property Value	400.00						

Challenges in Building Financial Model for Investment Property

Revenue

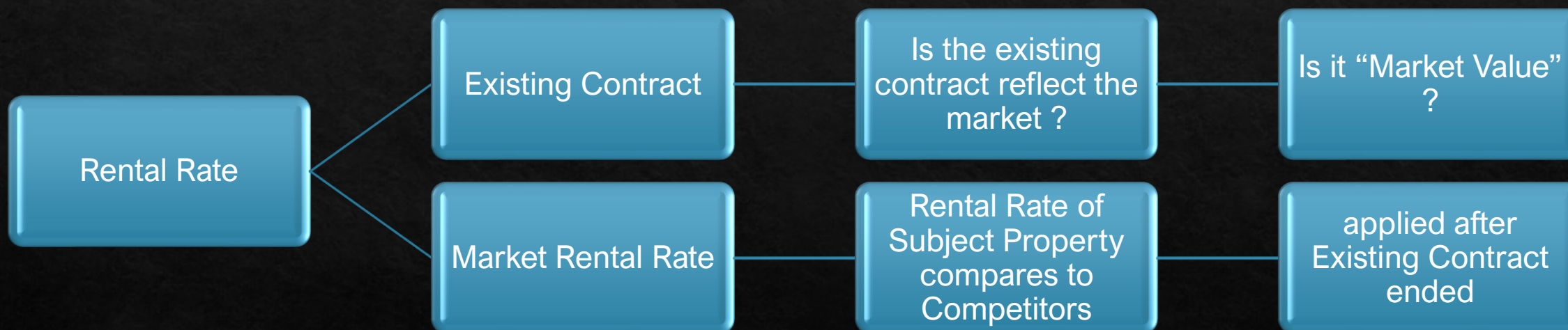
- Rental Rate
- Occupancy Rate

Discount Rate

- Owner's Expectation
- **Market Discount Rate**
 - Comparables of Capitalization Rate
 - WACC



Rental Rate



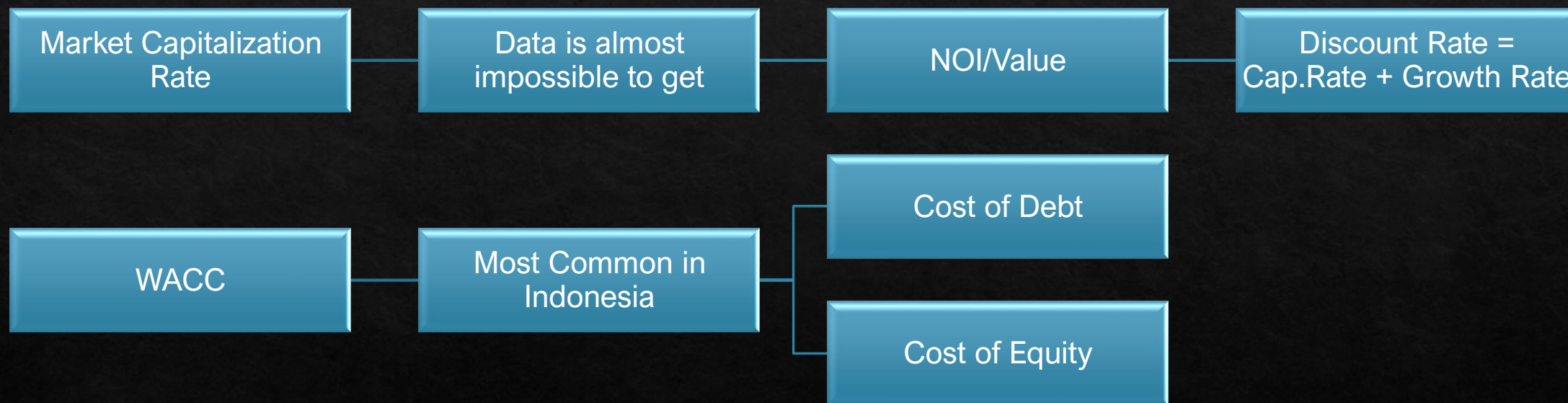


Occupancy Rate

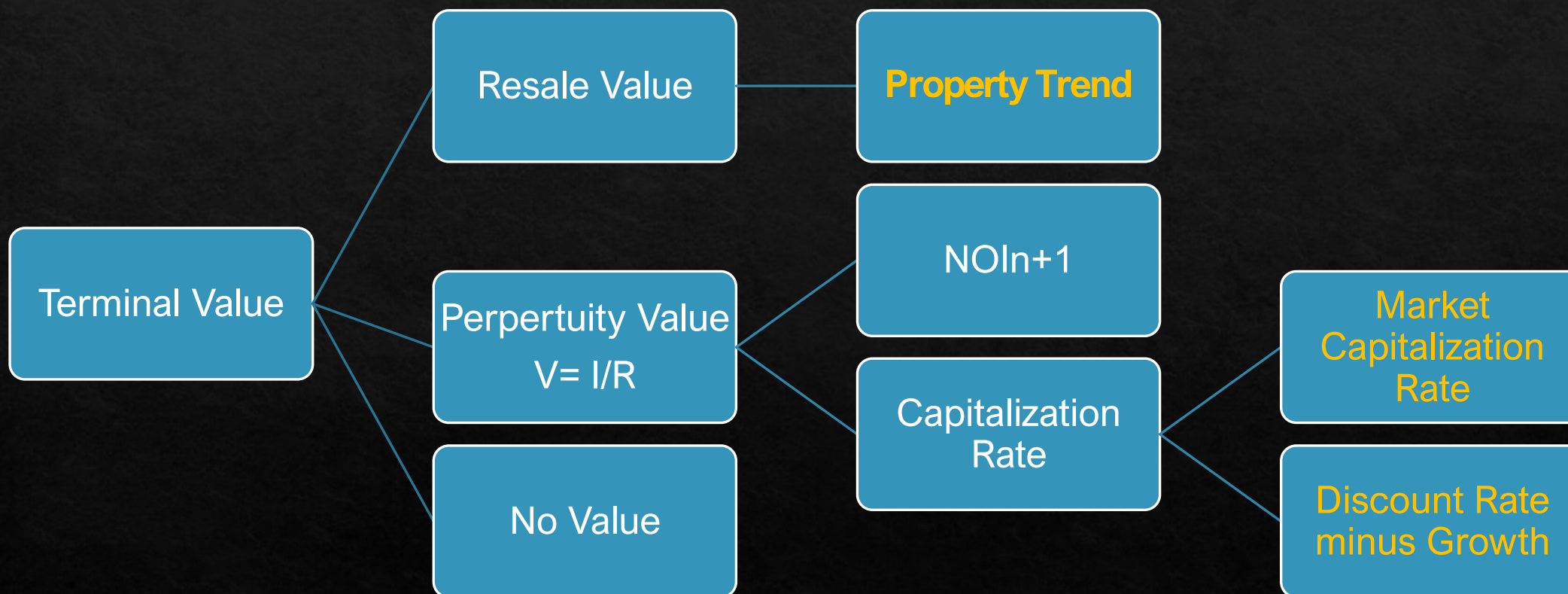




Discount Rate



Terminal Value





Value Indication

Value Indication from Income Approach captured financial benefit of Property Investment

- Expected Capital Gain has significant effect in Value Indication

Owning the Property is not all about Financial Benefit

- Property Price and Value are also effected by non financial motives



Valuation Simulation

- ◆ This Simulation is Hypothetical Valuation based on the market data:

Grade A Office Building in CBD Jakarta		
Rentable Area	m ²	70,000
Gross Floor Area	m ²	100,000
Land Area	m ²	8,000
Rental Rate	IDR 000/m ² /month	240
Occupancy Rate		73%



Description	Description2	Description3	Y1	Y2	Y3	Y4	Y5	Y6
Cash In								
Rentable Area	m2		70,000	70,000	70,000	70,000	70,000	70,000
Rental Rate	3% IDR 000		240	247	255	262	270	278
Occupancy Rate			73%	74%	75%	76%	76%	76%
Rental Revenue = NOI	IDR 000		147,168,000	153,659,520	160,408,080	167,423,260	172,445,958	177,619,337
<i>All Expenses Covered by Service Charge</i>								
Perpetuity Growth								3%
Capitalization Rate								8%
Terminal Value	Perpetuity Value							2,220,241,707
								3%
Discount Rate	11%		0.90	0.81	0.73	0.66	0.59	
PV of Net Operating Income	587,211,473		132,583,784	124,713,514	117,289,006	110,286,887	102,338,283	
PV pf Terminal Value	1,317,605,390							
Property Value	1,904,816,862							
Rounded	1,905,000,000							



◇ IDR 000

Indication from Income Approach		1,905,000,000
Land	8,000	1,600,000,000
Building	100,000	1,000,000,000
Indication from Cost Approach		2,600,000,000
		36%



- ◆ The Big Gap from Income Approach and Cost Approach is the signal to revisit both approaches calculation
- ◆ In Cost Approach, should consider the Economic Obsolescence if relevant
 - ◆ Cost Approach is still relevant, since Capital Expenditure to invest is the cost of acquiring Land and Cost to Build
- ◆ In Income Approach, adjusting the Terminal Value to accommodate the Expected Capital Gain



Description	Description2	Description3	Y1	Y2	Y3	Y4	Y5	Y6
Cash In								
Rentable Area	m2		70,000	70,000	70,000	70,000	70,000	70,000
Rental Rate	3% IDR 000		240	247	255	262	270	278
Occupancy Rate			73%	74%	75%	76%	76%	76%
Rental Revenue = NOI	IDR 000		147,168,000	153,659,520	160,408,080	167,423,260	172,445,958	177,619,337
<i>All Expenses Covered by Service Charge</i>								
Perpetuity Growth								6%
Capitalization Rate								5%
Terminal Value	Perpetuity Value							3,552,386,731
								6%
Discount Rate	11%		0.90	0.81	0.73	0.66	0.59	
PV of Net Operating Income		587,211,473	132,583,784	124,713,514	117,289,006	110,286,887	102,338,283	
PV of Terminal Value		2,108,168,624						
Property Value		2,695,380,096						
Rounded		2,695,000,000						



Indication from Income Approach		2,695,000,000
Land	8,000	1,600,000,000
Building	100,000	1,000,000,000
Indication from Cost Approach		2,600,000,000
		-4%

Thank You
Terima Kasih

½è Õ ¿óî

Salamat
Cảm ơn

