Private real estate, timberland and farmland

Private Markets

1 A story: two buildings, one label

- A let warehouse with a small loan
- A half-built tower with a big loan
- Both are called private real estate
- Their risks have little in common

IN THE LESSON

- Imagine two investments.
- One is a warehouse, fully let to sound tenants and bought with only a small loan.
- The other is a tower that is half built and paid for mostly with borrowed money.
- Both are called private real estate.
- Yet the first is a steady stream of rent, and the second is a bet that a project will be finished, let and sold at the price in the plan.
- Dana Reyes must advise Linden Court on which kind to hold, and how much.
- Her first job is to see what every property shares, because that explains why property behaves so differently from shares and bonds.

2 What every property shares

Why a building is not like a share

Feature	What it means
Unique and immovable	No two alike
Large, lumpy lots	Few holdings
High transaction costs	Slow, costly sales
Valued by appraisal	Opinion, not price

IN THE LESSON

- Start with a share of a company.
- Millions of identical shares trade in seconds at a visible price.
- A building is different in four ways.
- First, each one is unique and cannot be moved, so there is never an identical twin to compare it with.
- Second, buildings come in large lumps that cannot be split, so even a big fund holds only a handful, and one bad building matters.
- Third, the costs of buying and selling are high, so sales are slow and expensive.
- Fourth, because buildings trade so rarely, their values come from appraisal, which is a valuer's opinion and not a price.
- On top of this, buildings need active management, and owners often borrow to buy them.

3 Types and forms of ownership

Types: office, retail, industrial, housing, hotels

Form of ownership	Investor holds
Direct holding	The building itself
Private fund	A share of a pool
Joint venture	Shared with a partner
Commercial mortgage	A loan, not equity

IN THE LESSON

- An investor makes two choices.
- The first is the type of property: offices, shops, industrial and logistics buildings such as warehouses, multifamily housing, which means blocks of flats, and hotels.
- Each type has its own tenants and its own economy.
- The second choice is the form of ownership.
- Linden Court can hold a building directly, which gives full control but needs a property team.
- It can invest in a private fund, which pools money with other investors.
- It can form a joint venture and share a project with a partner.
- Or it can lend, through a commercial mortgage, which earns interest, ranks ahead of the owners, and does not share in any rise in price.

4 Four strategies on one line

- Core
- Core-plus
- Value-added
- Opportunistic

IN THE LESSON

- Now the strategies, which run along a scale.
- On the far left is core: stabilised buildings that are fully let, with little debt, where the return is mostly rent.
- Next is core-plus, which takes a little more leasing risk and a little more debt.
- Third is value-added.
- Here the manager buys a building that is under let or tired, refurbishes it, re-lets it at higher rents, and sells.
- On the far right is opportunistic, which means development with heavy borrowing.
- As you move right, three things grow together: the debt, the work, and the share of the return that depends on a price gain rather than rent.
- Core behaves a little like a long bond.
- Opportunistic behaves more like private equity.

5 Example 1: debt magnifies a fall

Each fund holds 100 of property; values fall 20%

Core equity (30% debt)	100 − 30	**70**
Opportunistic equity (70% debt)	100 − 70	**30**
Core equity lost	20 ÷ 70	**28.6%**
Opportunistic equity lost	20 ÷ 30	**66.7%**

IN THE LESSON

- Let us put numbers on it.
- Dana Reyes compares two illustrative funds.
- Each holds one hundred of property.
- The core fund borrows thirty, so its equity is seventy.
- The opportunistic fund borrows seventy, so its equity is thirty.
- Now property values fall twenty per cent, which takes twenty off the value of the buildings in both funds.
- The core fund loses twenty out of its seventy, which is twenty eight point six per cent of its equity.
- The opportunistic fund loses twenty out of its thirty, which is sixty six point seven per cent.
- Same market, same fall.
- And that is before any cost overruns on the development, which only the second fund faces.

6 Equity before and after the fall

Equity in the fund

Core: before	**70**
Core: after	**50**
Opp.: before	**30**
Opp.: after	**10**

Opp. means opportunistic

IN THE LESSON

- Here is the same result as a picture.
- The vertical axis is the equity in the fund.
- The first pair of bars is the core fund.
- Before the fall its equity is seventy, and after the fall it is fifty.
- The second pair is the opportunistic fund.
- Its equity starts at only thirty and ends at ten, almost wiped out.
- This is the trap the exam sets.
- It is tempting to treat all private real estate as a single risk, with a single expected return.
- It is not one thing.
- An opportunistic development behaves nothing like a core office, so each must be judged, and sized, on its own risks.

7 Example 2: leases set the income

Gross rent 100, costs 20; or net rent 80, tenant pays costs

Gross lease: income now	100 − 20	**80**
Gross: costs rise 25%	100 − 25	**75**
Fall in the owner's income	5 ÷ 80	**−6.3%**
Net lease: costs rise 25%	tenant pays	**80**

IN THE LESSON

- The leases decide what income an owner really gets.
- Under a gross lease the landlord pays the running costs, such as tax, insurance and upkeep, out of the rent.
- Under a net lease the tenant pays them.
- Take a gross lease with rent of one hundred and running costs of twenty.
- The owner's net operating income is eighty.
- Now costs rise twenty five per cent, to twenty five.
- The owner's income falls to seventy five, a drop of six point three per cent.
- A net lease with rent of eighty has the tenant paying the costs, so the owner's income stays at eighty.
- Lease length, indexation of the rent to prices, and the credit quality of the tenant also shape the income.

8 What drives demand and supply

What pulls demand for each type

Property type	Main demand driver
Office	GDP and jobs
Housing	Households, population
Retail	Consumer spending
Logistics	Trade, e-commerce

IN THE LESSON

- Think of a town that wins a new factory.
- Jobs arrive, workers need homes, shops see more customers, and rents start to rise.
- Property values follow the economy, but each type follows a different part of it.
- Offices follow growth in output and employment.
- Housing follows population and the number of households forming.
- Shops follow consumer spending.
- Logistics buildings follow trade and online shopping.
- Supply is the other side.
- New buildings take years to plan and build, and planning limits cap how much can be added.
- When demand rises faster than supply, rents rise.
- When builders overshoot, rents fall and buildings sit empty.

9 Value from income and the cap rate

Value = NOI ÷ cap rate
Cap rate ≈ required return − rent growth

Value	Price of the building
Net operating income	Rent less running costs
Cap rate	Income as share of price
Rent growth	Expected rent growth

IN THE LESSON

- Now the arithmetic that moves every property price.
- Think of a building as a machine that pays rent.
- Net operating income, or N O I, is the rent left after the costs of running the building, and before any loan payments.
- The cap rate is that income as a share of the price.
- Turn it around, and the value is the income divided by the cap rate.
- That is direct capitalisation.
- Where does the cap rate come from?
- It is roughly the return investors require, less the growth they expect in the income.
- When interest rates rise, required returns rise and the cap rate follows.
- When rents are expected to grow faster, the cap rate falls and value rises.

10 Example 3: a rise in the cap rate

Harbour Warehouse: NOI 5 million a year

Value at a 5% cap rate	5 ÷ 0.05	**100**
Value at a 6% cap rate	5 ÷ 0.06	**83.3**
Change in the rent	none	**0**
Change in value	83.3 against 100	**−16.7%**

IN THE LESSON

- Here is why the cap rate matters so much.
- Dana Reyes looks at Harbour Warehouse, which has net operating income of five million.
- At a cap rate of five per cent, the value is five divided by point oh five, which is one hundred million.
- Now interest rates rise, and the market cap rate moves to six per cent.
- The value becomes five divided by point oh six, which is eighty three point three.
- Look at the third row.
- The rent did not change at all.
- The tenants paid every penny.
- Yet the price fell by sixteen point seven per cent, only because the market now asks a higher return.
- Linden Court's trustees will feel that in their next valuation report.

11 Value falls as the cap rate rises

Chart: Value (millions) vs Cap rate (%)

- 4%
- 5%
- 6%
- 8%
- Value 100
- Value 83.3

IN THE LESSON

- Let us see that as a picture.
- The horizontal axis is the cap rate, from four to eight per cent.
- The vertical axis is the value of the warehouse, in millions.
- The curve slopes downward: a higher cap rate always means a lower price.
- It is also steeper on the left, so a rise of one point hurts more when yields are already thin.
- Now read the two points we found.
- At a cap rate of five per cent the value is one hundred.
- At six per cent it is eighty three point three.
- The drop between them is the same fall we found on the last slide.
- Every point on this curve has exactly the same rent.

12 Example 4: the cap rate, step by step

Warehouse NOI 5; investors require 8% a year

Cap rate, growth 2%	8% − 2%	**6%**
Value	5 ÷ 0.06	**83.3**
Cap rate, growth 3%	8% − 3%	**5%**
Value	5 ÷ 0.05	**100**
Gain from one point of growth	100 against 83.3	**+20%**

IN THE LESSON

- Where does the cap rate itself come from?
- Use the rule: the cap rate is about the required return less the expected growth.
- Say investors require eight per cent a year.
- If rents are expected to grow two per cent, the cap rate is eight minus two, which is six per cent, and the warehouse is worth five divided by point oh six, eighty three point three.
- Now a tight market makes investors expect rents to grow three per cent.
- The cap rate falls to five per cent and the value is one hundred.
- One extra point of expected growth lifted the price by twenty per cent.
- That is why interest rates and rent growth move property prices together.

13 What property adds to a portfolio

Four roles, each with a limit

Role in the portfolio	How it works
Income	Rent paid each quarter
Diversification	Different drivers
Inflation protection	Partial, as rents reset
Capital growth	Rising rents and values

IN THE LESSON

- What does Linden Court get from holding property at all?
- Four things.
- First, income: rent arrives every quarter, which suits a fund that pays pensions every month.
- Second, some diversification.
- Rents and values respond to local supply and demand, so property does not simply copy shares and bonds, though the link is not zero.
- Third, a partial hedge against inflation.
- Rents can rise with prices, but only when leases allow them to.
- Fourth, the chance of capital growth, if rents and values rise over time.
- Notice the word partial.
- Property is a useful supporting player, and it is not a perfect shelter from anything.

14 Example 5: fixed rent and inflation

Prices rise 3% a year for three years; both start at NOI 5

Indexed rent after 3 years	5 × 1.03 × 1.03 × 1.03	**5.46**
Fixed rent after 3 years	unchanged	**5.00**
Fixed rent in today's money	$5 \div 1.03^3$	**4.58**
Purchasing power lost	1 − 4.58 ÷ 5	**8.5%**

IN THE LESSON

- Now the inflation trap.
- People say property protects against inflation, and sometimes it does.
- But look at the lease.
- Marsh Lane office has a long lease at a fixed rent, with net operating income of five.
- Suppose prices rise three per cent a year.
- A warehouse with rent indexed to prices would see its income grow to five point four six after three years.
- The office is stuck at five.
- In today's money, that five is worth only four point five eight, a loss of purchasing power of eight point five per cent.
- The fixed lease gives certainty, but little protection until the rent is reset.
- The protection comes from the lease terms, and not from the label property.

15 A story: buying a used car

- Check the papers, the engine, the history
- Property due diligence does the same
- Papers: title, zoning, rent roll and leases
- Engine: condition, costs, market and loan

IN THE LESSON

- Before you buy a used car, you check the papers, the engine and the history.
- You would not hand over the money after a quick look at the paint.
- Buying a building is the same, only larger.
- This checking is called due diligence.
- It asks who really owns the property, who pays rent and for how long, what state the building is in, and what rules apply to it.
- Dana Reyes will not recommend Harbour Warehouse to the trustees until she has been through the papers, the physical state and the financing.
- A good valuation depends on facts, and due diligence is how the facts are found.

16 Due diligence checks

Four groups of checks

Check	What it covers
Legal	Title, zoning
Income	Rent roll, leases, costs
Physical and ESG	Condition, energy use
Market and loan	Supply, demand, terms

IN THE LESSON

- The checks fall into four groups.
- Legal: the title proves who owns the property, and zoning shows what it may be used for.
- Income: the rent roll lists every tenant and rent, and Dana Reyes reads each lease for the tenant's credit quality, the expiry date and any break options, which let a tenant leave early.
- She also checks the operating expenses.
- Physical: the condition of the structure, environmental hazards, and E S G issues such as the building's energy performance.
- Market and financing: local supply and demand, and the terms of any loan, including when it must be repaid.
- A building that fails any one of these four groups can lose its value fast.

17 Three ways to value a building

Three approaches to value

Approach	Core idea
Income	Capitalise or discount rent
Sales comparison	Adjust recent deals
Cost	Rebuild less wear, plus land

IN THE LESSON

- There are three valuation approaches.
- The income approach values the cash the building will produce.
- It can use direct capitalisation, which is income divided by the cap rate, or a discounted cash flow, a D C F, which values the lease cash flows plus a terminal value at the end.
- The sales comparison approach looks at recent sales of similar buildings and adjusts for differences such as size, location and condition.
- The cost approach asks what it would cost to rebuild the building today, subtracts depreciation for age and wear, and adds the value of the land.
- Income is the main tool for let investment property.
- The others serve as cross checks.
- Appraisals made this way lag the market.

18 Example 6: in-place against market income

Market rent 15% above rent paid; cap rate 5%; leases end in 2 years

In-place NOI		**4.0**
NOI at market rent	4.0 × 1.15	**4.6**
Value on in-place NOI	4.0 ÷ 0.05	**80**
Value on market-rent NOI	4.6 ÷ 0.05	**92**
Naive value is too low by	92 − 80	**12, or 13.0%**

IN THE LESSON

- Here is the classic trap.
- At Harbour Warehouse the current market rent is fifteen per cent higher than the rent the tenants pay, and every lease expires in two years.
- The leases are net, so income moves in line with rent.
- In place, net operating income is four.
- Capitalised at five per cent, that gives a value of eighty.
- But at market rent, the income would be four times one point one five, which is four point six, and the value would be ninety two.
- Simply capitalising the in place income understates the stabilised value by twelve, or thirteen per cent.
- The valuer must adjust the income to a stabilised level, or model the lease up explicitly, as we do next.

19 Example 7: modelling the lease-up

Discount rate 8%; re-letting costs 0.8 at the end of year two

Year one cash flow	NOI	**4.0**
Year two cash flow	4.0 − 0.8 re-letting	**3.2**
Value at end of year two	4.6 ÷ 0.05	**92.0**
Present value today	3.70 + 81.62	**85.3**

IN THE LESSON

- A fair value today sits between the two.
- Ninety two is the value once the building is re-let, and that is two years away.
- So Dana Reyes builds a discounted cash flow at eight per cent.
- In year one the warehouse earns its income of four.
- In year two it earns four, but the owner spends point eight re-letting the space, so the cash flow is three point two.
- At the end of year two the building is worth ninety two, from the market rent income and the five per cent cap rate.
- Discount each amount back to today.
- The year one cash flow is worth three point seven, and the year two cash flow and the sale value together are worth eighty one point six.
- The total is eighty five point three, and that is the fair value today.

20 Three answers for one warehouse

Value (millions)

Ignore leases	**80**
Model lease-up	**85.3**
As if let now	**92**

Same warehouse, three methods

IN THE LESSON

- Let us compare the three answers.
- The vertical axis is the value of the warehouse, in millions.
- The first bar ignores the lease expiries and capitalises the income as it stands today.
- It gives eighty.
- The second bar models the lease up with a discounted cash flow, and gives eighty five point three.
- The third bar assumes the building is already let at market rent, and gives ninety two.
- The honest value is the middle bar.
- It is higher than the naive one because better rents are coming, and lower than the third because they are not here yet, and the owner must pay to get them.

21 Example 8: appraisals lag the market

Market drops 100 to 90; appraiser closes 40% of the gap a year

Market value after the fall		**90.0**
Appraised value, year one	100 − 0.4 × 10	**96.0**
Appraised value, year two	96.0 − 0.4 × 6.0	**93.6**
Appraised value, year three	93.6 − 0.4 × 3.6	**92.2**

IN THE LESSON

- One more point about valuing.
- Appraisal based values lag the market.
- Suppose the market value of a building falls from one hundred to ninety at once.
- An appraiser, working from old sales and old assumptions, closes only forty per cent of the gap each year.
- After year one, the appraised value is ninety six.
- After year two it is ninety three point six.
- After year three it is ninety two point two, still above the market.
- The reported numbers fall slowly and smoothly, and a fall looks gentler than it was.
- So when Linden Court's valuation report shows a small loss, Dana Reyes asks how much of the real fall has yet to arrive.

22 Mistakes to avoid so far

- Treating all private property as one risk
- Trusting fixed rents to protect against inflation
- Capitalising in-place income on expiring leases
- Missing that value falls when the cap rate rises
- Reading appraisals as if they were live prices

IN THE LESSON

- Let us collect the common mistakes from the first three topics.
- One: treating all private property as a single risk, when core and opportunistic strategies differ enormously.
- Two: trusting fixed long leases to protect against inflation, when the rent cannot rise until it resets.
- Three: capitalising in place income on leases that are about to expire, instead of adjusting to a stabilised level or modelling the lease up.
- Four: forgetting that value falls when the cap rate rises, even if the rent has not moved.
- Five: reading appraisals as if they were live prices, when they trail the market.
- Keep these five in mind for the questions.

23 A story: trees that keep growing

- Trees keep growing whatever the price does
- A forest owner can wait for better prices
- A ripe crop must be picked when it is ready
- Both are real assets, but they work differently

IN THE LESSON

- Walk into a forest that is ready to harvest and the timber price is low.
- A shopkeeper in that spot would be stuck with unsold stock.
- A forest owner can simply wait.
- The trees keep growing, adding wood every year whatever the price does, so the owner stores value on the stump.
- Now walk into a field of wheat.
- When it is ripe it must be cut, price or no price, or it spoils.
- That one difference sets timberland and farmland apart.
- Both are real assets that give some inflation protection and move differently from shares.
- Dana Reyes now looks at how they earn, how they differ, and what they share with property.

24 Timberland and farmland side by side

What sets them apart

Question	Answer
Timber earns from	Growth, price, land
Farmland earns from	Crops or rent, land
Can the owner wait?	Trees yes, crops no
Shared traits	Inflation link, illiquid

IN THE LESSON

- Timberland earns from three things: the biological growth of the trees, the price of timber, and the value of the land.
- Its risks are fire, pests and weather, and carbon credits can add income.
- Farmland earns crop income, either by leasing the land to farmers for rent, or by operating it directly, plus appreciation of the land.
- Its returns depend on crop prices, yields, water rights and food demand.
- Both offer some inflation protection, low correlation with shares, and illiquidity, and both face scrutiny over environmental and social effects.
- The key difference is the third row.
- A tree can wait, a crop cannot.

25 Example 9: the timber waiting option

100,000 cubic metres; volume grows 5% a year; discount 8%

Cut now at 60	100,000 × 60	**6.00m**
Wait: price recovers to 66	105,000 × 66 ÷ 1.08	**6.42m**
Wait: price stays at 60	105,000 × 60 ÷ 1.08	**5.83m**
Gain from waiting, if recovered	6.42 − 6.00	**0.42m**

IN THE LESSON

- Let us value that option.
- Linden Court owns the Fernhill estate, with one hundred thousand cubic metres of mature timber.
- Prices have fallen to sixty a cubic metre, and the forester expects sixty six in a year.
- The trees grow five per cent in volume each year, and Dana Reyes discounts at eight per cent.
- Cutting now brings six million.
- Waiting a year gives one hundred and five thousand cubic metres at sixty six, discounted at eight per cent, which is worth six point four two million.
- That is point four two more than cutting now.
- But if the price stays at sixty, waiting is worth only five point eight three million, so the owner should cut.
- Waiting pays only if growth and price recovery beat the discount rate.

26 Row crops and orchards

Row crop, every year

Plant → Grow → Harvest

Orchard, a permanent crop

Plant trees → Years to mature → Harvest each year

IN THE LESSON

- Not every farm crop is the same.
- Row crops, such as grain, are planted and harvested within a year.
- The top row shows the cycle: plant, grow, harvest, and then start again next season.
- That gives quick income, and it lets the owner or the tenant change the crop when prices change.
- Permanent crops, such as orchards, are different.
- The bottom row shows that trees are planted, then take years to mature before the first real harvest, and then bear fruit year after year.
- So an orchard asks for patient money first and pays later, and it cannot easily be switched to a different crop.
- In both cases, once the crop is ready, the harvest cannot be postponed for a better price.

27 Example 10: leasing against operating

Marrow Valley farm worth 20 million; operator revenue 100, costs 80

Rent yield	0.7 ÷ 20	**3.5%**
Land appreciation	0.6 ÷ 20	**3.0%**
Total return, leased	3.5% + 3.0%	**6.5%**
Operator profit, price −20%	100−80=20 to 80−80=0	**−100%**

IN THE LESSON

- Dana Reyes also looks at the Marrow Valley farm, worth twenty million.
- If Linden Court leases it to a farmer, it gets rent of point seven million, a yield of three point five per cent.
- The land is expected to rise in value by point six million, three per cent.
- The total return is six point five per cent.
- Now suppose the owner operated the farm itself.
- With revenue of one hundred and costs of eighty, profit is twenty.
- If the crop price falls twenty per cent, revenue is eighty, and profit disappears.
- Leasing passes the crop price risk to the tenant.
- Operating keeps it.
- Either way, the crop cannot be held back, as timber can.

28 Where each strategy sits

Chart: Expected return vs Risk (volatility)

- Bonds
- Core
- Core-plus
- Value-added
- Equities
- Opportunistic

IN THE LESSON

- Now we weigh risk and return.
- The horizontal axis is risk, the volatility of returns, and the vertical axis is expected return.
- This is an illustration, not data.
- The curve rises from left to right, because more risk needs more expected return.
- Bonds sit at the left, low in both.
- Core property comes next: more risk than bonds, with more return.
- Then core-plus, then value-added, each adding leverage, leasing and development risk.
- Listed equities sit further right.
- Opportunistic sits at the far end, and a growing share of its return depends on appreciation and not income.
- In general, property's risk and return fall between those of bonds and equities.

29 Example 11: smoothed risk is not safe

Reported private vol 5%; autocorrelation 0.6; listed 16%

Reported private volatility		**5%**
Unsmoothed private volatility	5% × √(1.6 ÷ 0.4)	**10%**
Listed trust volatility		**16%**
Gap, reported then unsmoothed	16 − 5, then 16 − 10	**11 to 6 pts**

IN THE LESSON

- A trustee at Linden Court looks at the long run data.
- The private property index reports volatility of five per cent, and a listed real estate trust index reports sixteen.
- He concludes that private property is safer and wants to switch.
- Dana Reyes reminds him that appraisals smooth returns.
- Suppose the reported returns have a first order autocorrelation of point six.
- The usual correction is the square root of one point six over point four, which is two.
- Five times two is ten per cent.
- The gap with the listed index shrinks from eleven points to six.
- And over long horizons the two tend to converge, since both own buildings.
- Private property was never as calm as five per cent suggests.

30 Example 12: the denominator effect

Plan 1,000: equities 500, bonds 400, property 100

Equities after a 30% fall	500 × 0.7	**350**
Plan total	350 + 400 + 100	**850**
Property share of the plan	100 ÷ 850	**11.8%**
Target share		**10%**

IN THE LESSON

- Next, how much to allocate.
- Linden Court has one thousand million: five hundred in equities, four hundred in bonds, and one hundred in property, a target of ten per cent.
- Equities then fall thirty per cent, to three hundred and fifty.
- The plan is now worth eight hundred and fifty, and property, still held at its appraised value, is one hundred, or eleven point eight per cent.
- Property did not grow.
- The total shrank, which is the denominator effect.
- The plan is over its target, but selling a building takes months and costs a lot, so it cannot rebalance quickly.
- Add leverage, concentration in a few large assets and illiquidity, and the allocation must stay modest.

31 Recommendation for Linden Court

Property sleeve is 10% of the plan, 100 million

Strategy	Share of property sleeve
Core	70%
Core-plus	20%
Value-added	10%
Opportunistic	0%

IN THE LESSON

- Now the recommendation.
- Linden Court is a mature plan that pays pensions every month, so it needs income and has little spare liquidity.
- Dana Reyes proposes a property sleeve of ten per cent of the plan, one hundred million.
- Within the sleeve, seventy per cent goes to core, for steady rent and modest debt.
- Twenty per cent goes to core-plus for some extra return from leasing.
- Ten per cent goes to value-added, to lift return a little.
- Nothing goes to opportunistic, because the plan has no development staff and cannot absorb a loss like the one we saw.
- What could go wrong?
- Cap rates could rise, leases could expire, appraisals could hide a fall, and the plan might need cash when buildings cannot be sold.

32 Recap: the lesson in five lines

- Lumpy, illiquid; core to opportunistic strategies
- Value = NOI ÷ cap rate; cap rate is return less growth
- Value on stabilised income after checking every lease
- Trees can wait to harvest; crops cannot
- Unsmooth risk, size for illiquidity, fit the client

IN THE LESSON

- Let us pull the lesson together.
- First, private property is unique, lumpy, illiquid and valued by appraisal, and its strategies run from core income to leveraged opportunistic development.
- Second, value is net operating income divided by the cap rate, and the cap rate is about the required return less rent growth.
- Third, check every lease, then value the building on stabilised income or model the lease up.
- Fourth, timber can wait for better prices and crops cannot.
- Fifth, unsmooth the risk before comparing it with listed property, allow for illiquidity and the denominator effect, and fit the strategy mix to the client's income needs.

33 Try three quick questions

1. NOI 8, cap rate rises from 5% to 6%. New value and change?
   Answer: 8 ÷ 0.05 = 160; 8 ÷ 0.06 = 133.3; down 16.7%.
2. Timber worth 10 now; +4% volume, +10% price in a year; discount 8%. Cut or wait?
   Answer: 10 × 1.04 × 1.10 ÷ 1.08 = 10.59, more than 10. Wait.
3. Fund with 60% debt; property falls 25%. Share of equity lost?
   Answer: Equity 40, loss 25, so 25 ÷ 40 = 62.5% of equity.

IN THE LESSON

- Now try three quick questions yourself.
- Pause after each one.
- Question one.
- A building earns net operating income of eight million.
- The cap rate rises from five per cent to six per cent.
- What happens to the value?
- Eight divided by point oh five is one hundred and sixty.
- Eight divided by point oh six is one hundred and thirty three point three, a fall of sixteen point seven per cent.
- Question two.
- A timber stand is worth ten million if cut today.
- In a year its volume is expected to be four per cent higher and its price ten per cent higher, and the discount rate is eight per cent.
- Cut or wait?
- The discounted value is ten point five nine, so wait.
- Question three.
- A fund has sixty per cent debt, and property values fall twenty five per cent.
- What share of its equity is lost?
- Equity is forty, the loss is twenty five, so sixty two point five per cent of the equity is gone.