



FINM3406

Real Estate Finance

Lecture 8

Debt & Taxes

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Outline

- Debt & Equity Capital Markets
- Overview of Debt & Equity Financing for Real Estate
- Real Estate Development Finance
- Financial Metrics
- Financial Leverage
- Taxation of Real Estate Investments

Objectives

- Understand and explain the difference between debt and equity capital and how it applies in real estate
- Be able to calculate Cash on Cash yield to determine the performance of real estate assets
- Understand the process and options available for financing real estate developments
- Understand the operation of leverage and its associated risks and opportunities as it applies to real estate investment

DEBT & EQUITY CAPITAL

Capital Markets – Four Categories

Four Categories

- Capital Markets can be divided into four categories based on whether they are **public** or **private** markets and if the assets are traded with **debt** or **equity**.
- **Public Markets** - small units (“shares”) of ownership in assets are traded in public exchanges. i.e. stock market
- Public markets have a high degree of liquidity – generally possible to quickly sell units of the assets at or near the last quoted price.
- Public markets have high informational efficiency

Capital Markets – Four Categories

- **Private Markets** - assets are traded privately between individual buyers and sellers
 - Generally less liquid than public markets
 - Common for whole assets (entire company, property etc.) to be purchased
 - Private markets are less informationally efficient than Public markets
-
- **Debt Assets** – rights to future cash flows to be paid out by borrowers on loans
 - **E.g.** interest payments and retirement of principal on a loan
 - Debt assets may provide owners with a relatively senior claim to obtaining cash than the underlying asset
 - Debt cash flows provide relative security over how much and when payments will be made

Capital Markets – Four Categories

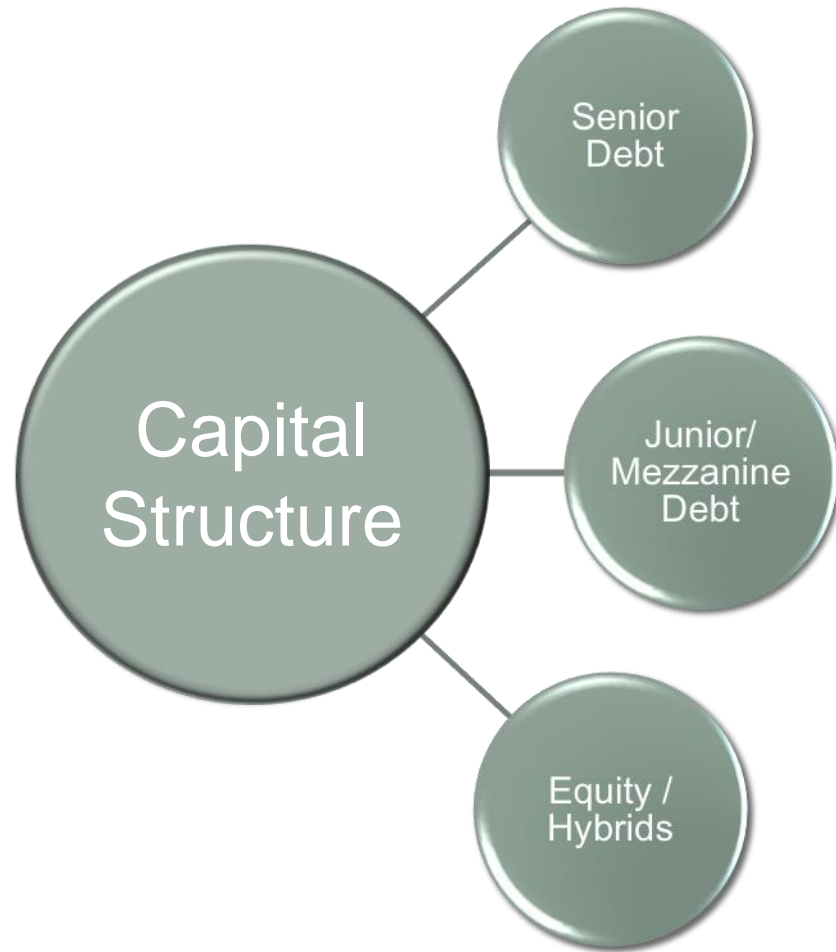
- **Equity Assets** - give owners the “residual” claim in the cash flows generated by underlying asset
- Lacks seniority to debt owed on the asset/property
- Tends to be more risky than debt
- Equity owners tend to have more control over managing underlying assets & are better able to benefit from growth
- Owners need to sell the asset in order to liquidate their holding – means more volatile market

Capital Markets – Four Categories

	Public Markets	Private Markets
Equity Assets	Stocks REITs Mutual Funds	Real Property Private Equity Hedge Funds
Debt Assets	Bonds MBS (Mortgage Backed Security) Money Instruments	Bank Loans Whole Mortgages Venture Debt and LBOs

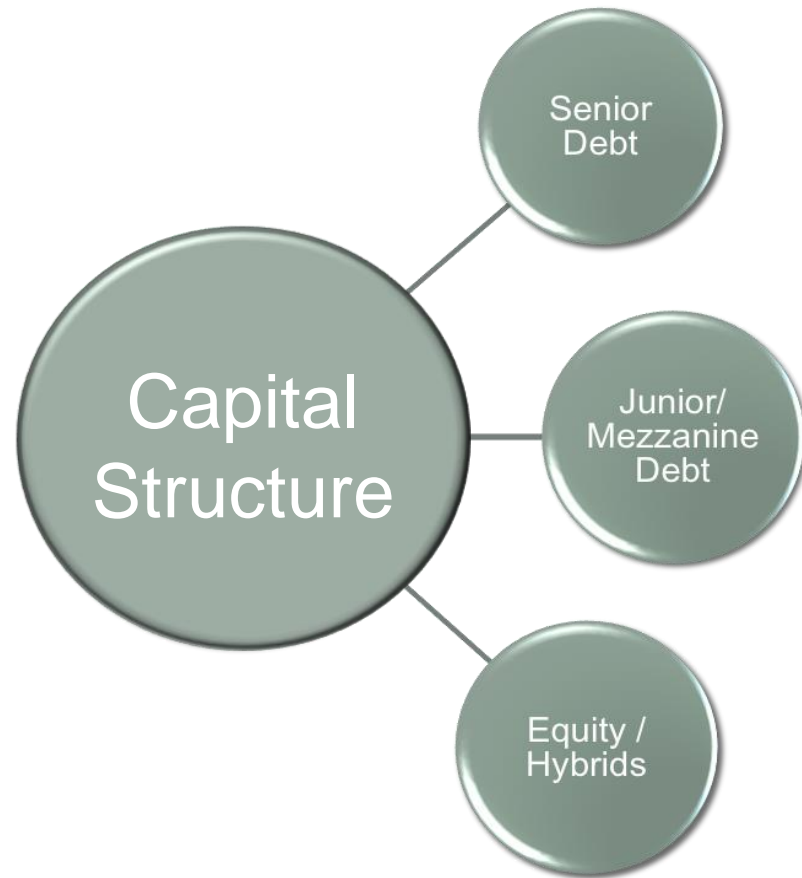
DEBT & EQUITY FINANCING FOR REAL ESTATE

Overview of Debt – Senior Debt



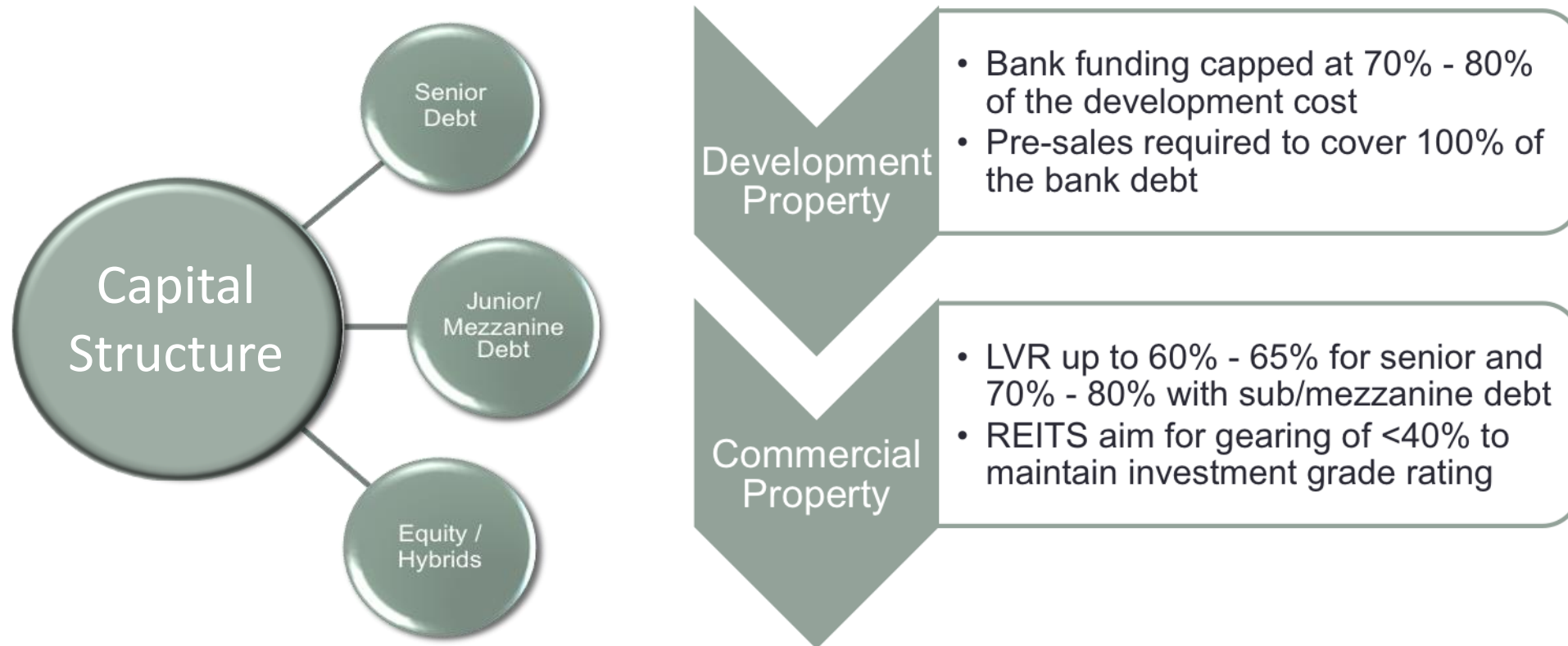
- Bank Debt
 - Most liquid and flexible option, albeit bank focused on investment grade
 - Can be structured as bilateral, clubs or syndicates

Overview of Debt – Senior Debt

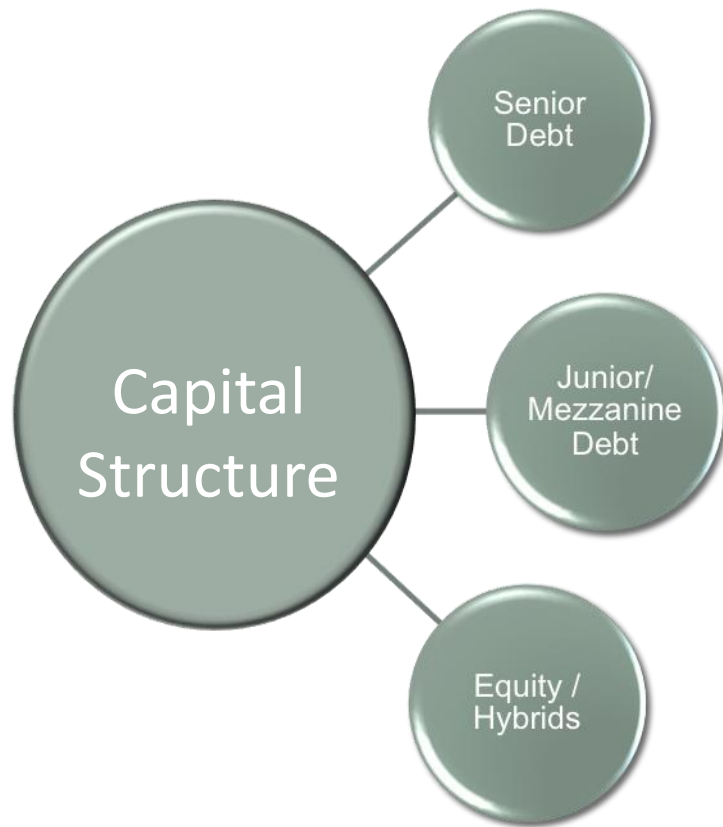


- Bonds
 - For investment grade corporates it offers low cost, longer tenors and diversification
- Alternative Capital
 - Wholesale notes: New product funded mostly by high net worth individuals
 - Private placements: Funds are emerging as a new class of lender, albeit at higher cost than banks

Senior Debt – gearing levels across the market

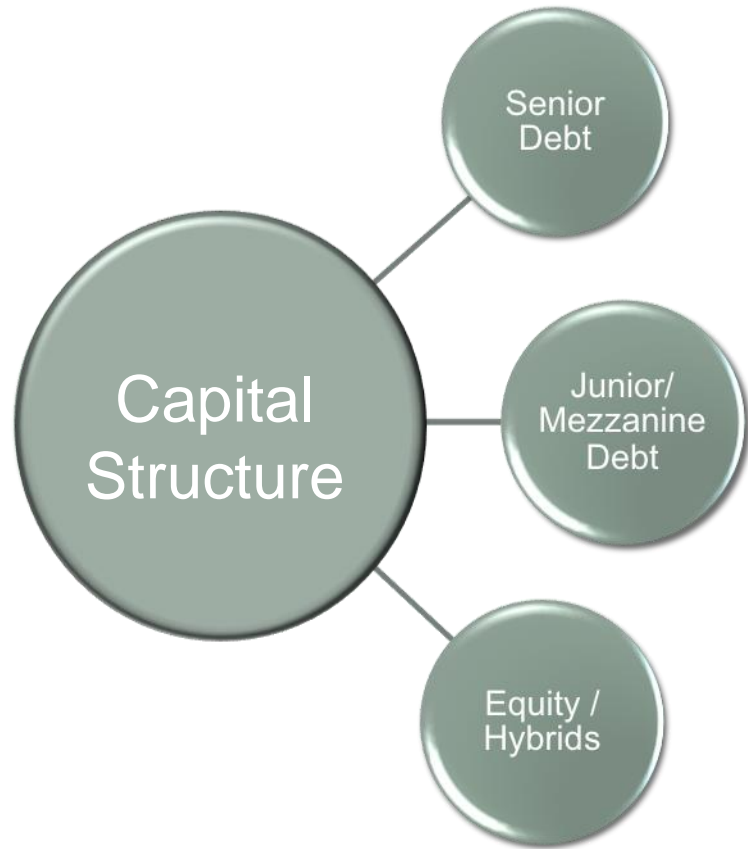


Capital Structure – Junior / Mezzanine Debt



- Globally, a growing market with a commercial prevalence of credit funds emerging with 30 – 40 of them now operating in Australia
- More expensive than senior debt due to lower guarantor / security ranking
- Primarily used to increase debt levels above senior debt capacity
- Lenders to this class of debt include:
 - Super funds
 - High-yield funds
 - Uni-tranche funds
 - Special situation funds
 - Distressed funds

Capital Structure – Equity



- Space Market Investment
- Most expensive source of funding due to ranking behind all debt, with upside returns
- Can be in the form of:
 - Equity shareholding (public and private)
 - Some forms of hybrids/convertibles with mandatory conversion
- Institutional providers other than superfunds/fund managers can include:
 - Venture capital
 - Hedge funds
 - Private Equity
 - Family Offices

DEVELOPMENT FINANCE

1. Development Finance

Classes of Capital

- Debt
- Equity
- Mezzanine finance

Characteristics

Debt

- a loan
- contractual obligation to repay
- usually secured
- for a defined term
- interest payable

Equity

- an investment
- no surety of repayment
- unsecured
- in perpetuity
- dividends payable only from profits

Sources of Debt Capital

- “Big Four” domestic banks (CBA, NAB, Westpac, ANZ)
- Smaller domestics (St George, BoQld, Suncorp-Metway, Ashe Morgan Winthrop, etc)
- Foreign banks (eg Scottish Pacific)
- Mortgage lenders (eg RAMS)
- Private placements

2. Debt Finance Facilities

A. Term loans

B. Bank bills

C. Letters of credit (LCs)

2A. Term Loans

- Most common type of debt
- Flexibility to match interest/ principal repayments to available cashflow
- “Construction Finance” (Short term = to around 2 -4 years)
- “Term Debt” (longer term = more than 4 years)

2B. Bank Bills (Bills of Exchange)

- Negotiable instruments
- Commitment to repay at fixed future date (up to 180 days)
- Can roll over (at prices then current)
- Characteristics of a post-dated cheque
- Often used where there is a guaranteed takeout

2C. Letter of Credit

- Guarantee by a financier used to underwrite borrowing of client to a third party
- Allow client flexibility to shop for best interest rates
- Not favoured by banks (low margin differentials)

3. Costs of Debt Finance

A. Interest

$$\text{Interest rate} = \text{Lenders Cost of Finance} \\ + \text{Risk Margin}$$

B. Establishment Fee

C. Line Fee

D. Reimbursables

3A. Repayment Structure

- Amortisation = repayment of debt gradually over the term (incl both interest and principal) - can be uniform or structured
- Interest Only = regular interest payments, principle at settlement (most common)
- Capitalised interest = all repaid at end

3A. Interest Options

Fixed

- Certainty about repayments
- More expensive than floating
- Up to 5 years available
- Break costs apply with early settlement

Floating

- Take advantage of falling rates
- Borrower exposed to interest volatility
- Referenced to a published market rate (eg bank bills)
- No real break costs

3B. Other Costs: Establishment Fee

- Covers lender's cost of processing application and documentation of loan
- Typically 0.5%
- Payable upfront
- Payable only if application approved

3C.Other Costs: Line Fees

- Covers lender's costs of ongoing loan administration
- Typically 1.0% pa
- Payable each year (or part year)

3D. Other Costs: Reimbursables

- Lender's external costs
- eg, legals, stamp duty, valuation fees
- Reimbursable at cost

4. Debt - Security

Debt can be:

- recourse (ie with security)
- non-recourse (ie with no security)
- or limited recourse

Trend away from asset backed toward a cashflow and capacity to repay approach

5. Types of Security

- Mortgage over property
- Security over other physical assets
- Charges over associated companies
- Rights to future cash flows
- Guarantees

6. Security Terms

- A. Registered mortgages
- B. Charges - fixed and floating
- C. Cash on deposit, bank guarantees or letters of credit
- D. Personal and directors' guarantees
- E. Third party guarantees
- F. Cross-collateralisation

6A. Registered Mortgages

- Real Property Act provides for a registered charge on land securing payment of a debt
- Banks usually insist on 1st mortgage
- 2nd mortgage risk dependent on 1st mortgagee's conduct

6.B Charges - Fixed and Floating

- A charge is a form of security used to secure a debt
- Usually referred to non-property item of value (eg company, asset, contract)
- Fixed relates to a single asset
- Floating lodged over a basket of assets (lender can choose upon default)

6.C Cash, Bank Guarantees, LCs

- Commonly used as extra security
- Still better to borrow than use direct cash (tax benefits)
- Banks generally lend to 100% of value
- Possible to fund development as 100% debt by effectively using these

6.D Personal or Director's G-tees

- Unpalatable for individuals involved
- Personal guarantees apply for individual borrower
- Director's guarantees for a company
- Sometimes even need shareholders' guarantees
- Usually joint and several
- Need release if leaving the company

6.E Third Party Guarantees

- Where an individual or company, other than the borrower secures the loan
- Generally come at a cost (can be structured as debt or equity interest)
- Not favoured by banks on larger transactions

6F. Cross-collateralisation

- Refers to use of independent security for a loan
- Used to achieve benchmark Loan Security Ratio

7. Typical Development Debt

- Max loan to cost ratio ~ 70-75% of “hard” costs
- Secured by mortgage (plus guarantees?)
- Interest ~ 30 points (3%) above bank bills currently around ?%
- Interest payable progressively
- First draw-down after Building Approval

8. “Hard” vs “Soft” Costs

Hard Costs

- Construction
- Land plus all costs to BA

Soft Costs exclude:

- Agent commissions, advertising/ marketing, stamp duty, bank fees

9. Refinance on Completion

Construction Finance

- construction & take-out risks
- higher interest
- capitalised interest
- high levels of security

Term Debt

- only operating risks
- lower interest
- regular interest
- less harsh security

10. Basic Finance Terms

- Loan to value ratio (LVR)
- Loan security ratio (LSR)
- Peak debt and exposure
- Amortisation
- Interest: fixed/ floating, caps/ collars, swaps

Debt Security Measures

- Loan to Value Ratio (LVR) = amount borrowed / value of the property
- Loan Security Ratio (LSR) = amount borrowed / value of all securities

Bank guidelines on LVR

- Residential housing to 90%
- Income producing property to 67%
- Also look at % of “hard costs”
to 75%
- Specialised properties (eg hotels)
to 50%

Debt Exposure Terms

- Peak debt = largest amount of funds outstanding at any time during term of debt
- Exposure = amount of funds outstanding at any one point in time

Lender's Appraisal

- Loan Security Ratio (“LSR”)
- Interest cover
- Construction risk
- Take-out risk (pre-sales)
- Track record of borrower

Loan Agreement Issues

- Principal amount
- Term - repayment schedule
- Interest rate; fixed/floating, amount
- Timing of interest
- Security; form, recourse and priority
- Performance covenants
- Default (eg increase interest 2-3%)

FINANCIAL METRICS

Equity Multiple

- Very basic metric
- Doesn't take into consideration discounting or time value of money
- Its simplicity makes it popular

The equity multiple is arrived at as follows:

$$EM = Er/Ei$$

where:

Ei = equity invested

Er = total cash returned (income and capital)

EM = equity multiple

Equity Multiple

- The Equity Multiple measure is at its most appealing when dealing with a very simple investment focused on capital gain.
- Assume you paid a \$100,000 deposit for a house in cash that cost you \$1,000,000 including all acquisition costs with an interest only loan of \$900,000.
- You received no net income whilst you own the unit (ie rent covered all costs including debt payments which are interest only)
- Five years later you sold the unit for \$1,650,000 and received \$1,607,100 after costs of sale were paid.
- Total return \$1,607,100 (income) - \$900,000 (outstanding liabilities) = \$707,100
- This would show an Equity Multiple of 7.07

$$EM = Er/Ei$$

$$EM = \$707,100/\$100,000$$

$$EM = 7.07$$

Income Return

- This is the net rent or NOI received over the measurement period divided by the value at the beginning of the period.
- $IR = Y_{0-1}/CV_0$
- Cash-on-cash yield (CoC)
- $CoC = (Y_{0-1} - interest_{0-1}) / (CV_0 - loan)$
- where:
- IR = income return
- Y_{0-1} = income received over the next period from time point 0 to time point 1
- CV_0 = capital value at time point 0

Cash on Cash Yield

- The Cash-on-Cash Yield is the Income Return that an investor receives when they use debt.
- It represents the ratio of cash flow generated by the property to the amount of cash invested.
- It is useful to differentiate between real estate assets to determine which one has the highest return for any given amount of cash (ie equity) invested.

Cash on Cash Yield

- Assume that an apartment block was bought for \$40,000,000.
- The investor put in \$8,000,000 of equity and a major bank made a senior loan of \$32,000,000 on an interest only basis.
- The passing net rent is \$3,000,000 p.a.
- The interest rate on the senior debt is 7%, meaning that \$2,240,000 p.a. of the rent is needed to pay interest. The investor keeps the rest of the rent.
 - What is the LTV ratio?
 - What is the Initial Yield?
 - What is the Cash on Cash Yield?

LEVERAGE

Mechanics of Leverage

- Analogy between financial and physical leverage proves helpful.
- \$4m in equity can purchase \$10m in property.
- Leverage Ratio = value of underlying asset divided by the value of the equity investment.

$$LR = \frac{V}{E} = \frac{(L + E)}{E}$$

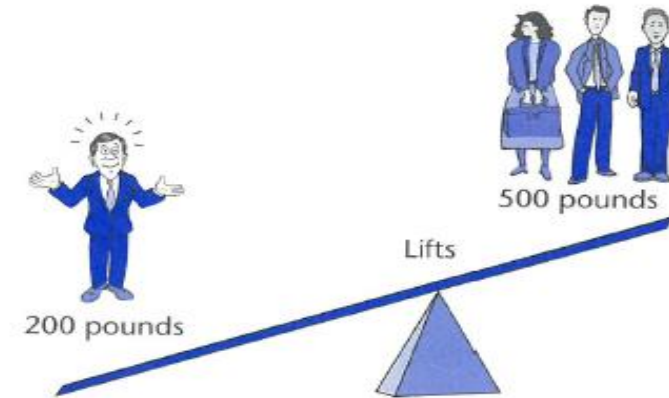
Where:

V = Asset Value

L = Loan Value

E = Equity

Physical Lever



$$\text{Leverage Ratio} = 500/200 = 2.5$$

Financial Leverage



$$\begin{aligned}\text{Leverage Ratio} &= \$10,000,000 / \$4,000,000 = 2.5 \\ \text{Equity} &= \$4,000,000 \\ \text{Debt} &= \$6,000,000\end{aligned}$$

Effects of Leverage on the Expected Return

- Substantial leverage has the effect of substantially increasing the expected return.
 - If an equity investor is able to borrow money at an interest rate lower than the expected return.
- Example:
 - Purchase Price: \$10,000,000
 - Value Appreciates to: \$10,200,000 (2%)
 - Income Return: \$800,000
 - Interest Only Mortgage: 5%
 - Loan: \$6,000,000
 - Equity Invested: \$4,000,000

Effects of Leverage on the Expected Return

Property:

Income Return:

$$\begin{aligned} &= \$800,000 / \$10,000,000 \\ &= 8\% \end{aligned}$$

Capital Return:

$$\begin{aligned} &= (\$10.2\text{m} / \$10\text{m}) - 1 \\ &= 2\% \end{aligned}$$

Total Return = 8% + 2% = 10%

Debt:

Debt Service:

$$\begin{aligned} &= 5\% \times \$6,000,000 \\ &= \$300,000 \end{aligned}$$

Income Return: (60% Debt)

$$\begin{aligned} &= \$480,000 / \$6,000,000 \\ &= 8\% \end{aligned}$$

Levered Equity

Cash Remaining for Equity Investor 40% :

$$\begin{aligned} &= \$800,000 - \$480,000 \\ &= \$320,000 \end{aligned}$$

Capital Position at Year End:

$$\begin{aligned} &= \$10,200,000 - \$6,000,000 \\ &= \$4,200,000 \\ &= \$200,000 \text{ Capital Gain} \end{aligned}$$

Equity Return (40% Equity):

$$+ \quad = \$320,000 / \$4,000,000 = 8\%$$

$$\begin{aligned} \text{Capital Return} &= \$200,000 / \$4,000,000 = 5\% \\ &= 8\% + 5\% = 13\% \end{aligned}$$

Effects of Leverage on the Expected Return

	Property	Levered Equity	Debt
Initial Value	\$10,000,000	\$4,000,000	\$6,000,000
Cash Flow	\$800,000	\$320,000	\$300,000
Ending Value	\$10,200,000	\$4,200,000	\$6,000,000
Income Return	8%	8%	5%
Appreciation Return	2%	5%	0%
Total Return	10%	13%	5%

- Because the equity investor has been able to borrow money at an interest rate lower than the expected rate of return (5% versus 10%), the leverage has the effect of substantially increasing the returns to the investor.

LEVERAGE

Tax

- Tax complicates things..

	Property Only	With Borrowings
Before Tax	Net rental income and resale proceeds	Net rent less loan payments and resale proceeds less outstanding loan
After Tax	Net rental income after depreciations and income tax and resale proceeds after capital gains tax	Net rent less loan payments and income tax and resale proceeds less outstanding loan and capital gains tax
Don't forget to include	Depreciations, CGT, Income tax	Mortgage duty establishment fees

Why Tax Matters?

- Not all properties are taxed in the same way
 - Rental income or capital gain
 - Depreciation allowances
 - Recapture on resale
- Not all owners are taxed in the same way
 - Different rates
 - Different offsets
 - Different treatment of losses from properties
 - Different ownership entities
 - Passing through or paying tax

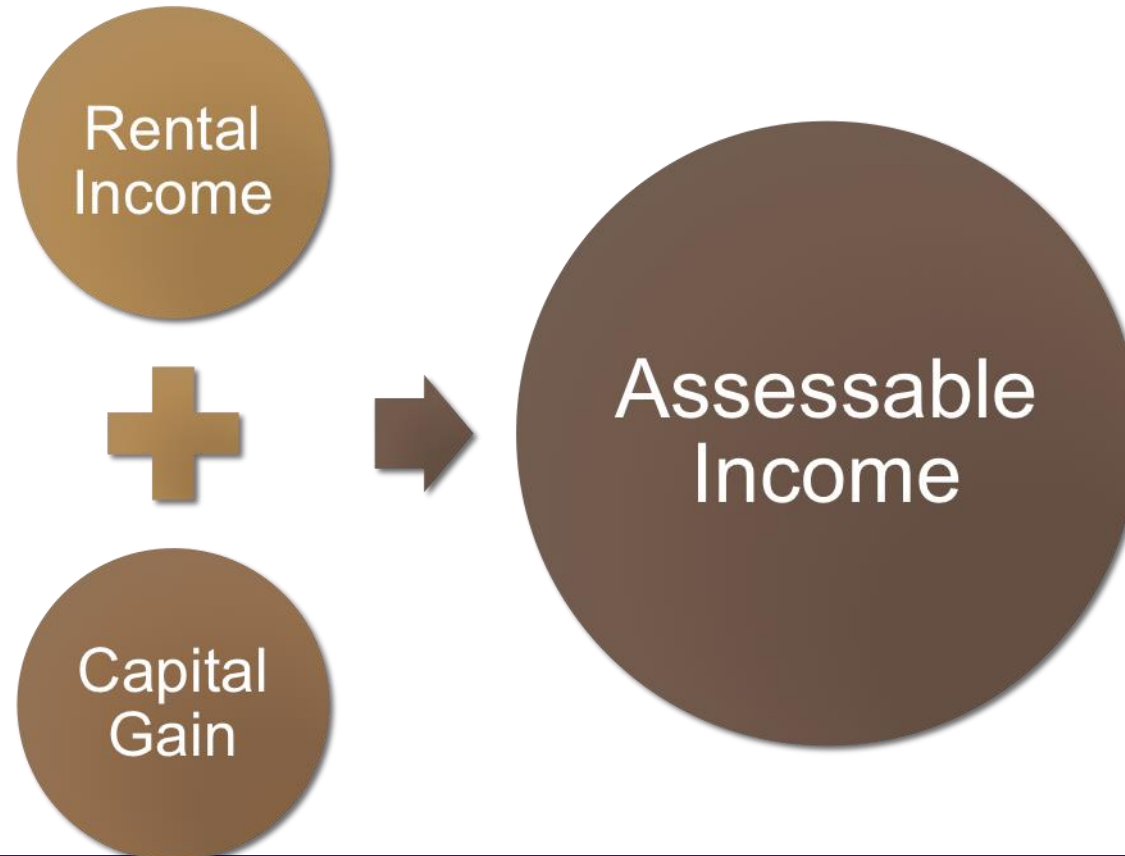
How is Tax Payable Calculated?

$$\begin{aligned} & \text{Assessable income} \\ & \quad - \text{less deductions} \\ & = \text{Taxable income} \\ & \quad \times \text{marginal tax rate} \\ & = \text{Basic tax payable} \\ & \quad - \text{less tax offsets} \\ & = \textbf{Tax payable} \end{aligned}$$

- Either calculated
 - By treating the property as a separate investment, or
 - The difference between tax paid with and without the property

Assessable Income from Property

- Tax is payable on Assessable Income



Rental Income

- All Rent and other recurrent lease payments
 - On either cash/receipts basis or accruals basis
 - Accruals may be applicable for rent paid in arrears
 - And trading profits of developers and other businesses

Capital Gain

- Capital gains tax (CGT) is the tax you pay on a capital gain.
- It is not a separate tax, just part of your income tax.
- The most common way you make a capital gain (or capital loss) is by selling assets such as real estate, shares or managed fund investments.
- <https://www.ato.gov.au/General/Capital-gains-tax/>

Deductions

- Expenses incurred in producing assessable income provided they are not capital, private or domestic
 - They can be claimed when they are incurred (due to be paid) or prepaid for the following year or they must be “properly referable” to the year of claim
 - The latter for businesses
- Statutory charges, insurance, fuel, management charges, etc as well as:
 - Loan interest
 - Repairs/maintenance
 - Depreciation allowances

Deductions: Loan Interest

- Deductible provided that the money is borrowed to produce assessable income..
 - In the not too distant future...
- Negative gearing generally means:
 - That the loan interest exceeds net income; or that rental property deductions exceed assessable rental income
 - The tax loss shelters investor's *other income from tax*
- Borrowing expenses are deductible over the shorter of the loan period or five years.

Deductions: Repairs / Maintenance

- Not renewal or improvements (generally depreciable)
- Not initial repairs to enable the property to be rented
- Not payments into sinking funds until spent
- Not capital expenditure

Deductions : Depreciation and Capital Expenditure (Capex)

- Capex:
 - The renewal of material different from the original: and / or
 - Work that has effectively been an improvements; and / or
 - Has increased the value of the asset; and / or
 - Expenditures to reduce the likelihood of further repair

Depreciation – What is it?

- You may be able to claim a deduction for the decline in value of your depreciating assets. A depreciating asset is an asset that can be expected to decline in value over the time it is used e.g.:
 - Computers
 - Electrical tools
 - Furnishings
 - Carpet and curtains, and
 - Motor vehicles
- Using either the **prime cost** or **diminishing value** method. Both methods are based on the effective life of an asset. For most depreciating assets, you choose whether to self-assess the effective life or adopt the Commissioner's determination.

Depreciation Allowances

- Different types of depreciation:
 - Plant depreciation
 - Building allowances
 - Investment allowances
- Different amounts, rates and treatment on resale for each element.

Plant Depreciation

- Plant within buildings-
 - Lifts, air-conditioners, carpets, hot water systems, cookers...
 - Portion of purchase price is apportioned
- Rate is determined by effective life of plant:
 - Generally, the Commissioner's schedule is adopted.
- Prime cost rate = $100 / \text{effective life}$ or
- Diminishing value (applied to the adjustable value at twice the prime cost rate for plant acquired after 9 May 2006)
- A balancing adjustment is made if the plant is sold for more or less than its adjustable value.

Building Allowances

- 2.5% or 4% p.a. of the cost of construction
 - Depending on the start date and type of property
 - July 1985 – Sept 1987 = 4%
- Transferable to subsequent owners
- Reduces the cost base for capital gains if acquired after 13 May 1997
- Depreciation allowances are a valuable tax shelter or shield as they reduce (or defer) tax paid

Tax and the Ownership Entity

- Key tax issues:
 - Pass through entity or entity taxation?
 - Any elements taxed in the entity and again when distributed?
 - E.g. capital gains by companies, depreciation tax shields effectively trapped within companies
- Other issues in choosing the ownership structure:
 - How is a control shared?
 - Are investors liable for losses?
 - How flexible is the structure?
- Partnerships (which complete tax returns but each partner liable): discretionary trusts; proprietary companies.

Choosing an Ownership Entity

	Person	Partners	Trust	Company
Distributions	✓	Shared	Flexible	Dividends
Governance		Flexible	By trustee	Formal
Liability (for Losses)	✓	Jointly	Limited	Limited
Taxation	Pass thru	Pass thru	Pass thru	Entity
Tax rate of	Person	Partners	Beneficiaries	30%
Pass thru losses	✓	✓	✗	✗
Gains tax discount	✓	✓	✓	✗

Why do we care?

- After tax cashflow is a more holistic approach to investment analysis.
- After all, that's what makes negative gearing and rental houses so attractive (i.e. the tax return).



Questions?