

UNDERSTANDING THE DEVELOPMENT PRO FORMA

Curtner Leadership Program
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Urban Formation



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What is a Pro forma

- Model of future development performance
- Informed by assumptions
- Opportunity costs and risks

Pro Forma Components

- Revenues
- Costs
- Project performance
- Project valuation

Pro Forma Approaches

- **Static Analysis**

- Snapshot based on one point in time when project is completed

- **Discounted Cash Flow Analysis (DCF)**

- Performance is examined over a project operation period
- Based on the present value of the cash flows vs the initial investment

Static Condo Pro Forma

| | |
|----------------------------|--------------|
| Revenues | \$57,750,000 |
| | |
| Land Cost | \$4,500,000 |
| Hard Cost | \$27,300,000 |
| Soft Cost | \$8,190,000 |
| Contingency | \$1,365,000 |
| Development Charges | \$4,200,000 |
| Financing | \$2,505,525 |
| Development and Land Costs | \$48,060,525 |
| | |
| Profit | \$9,689,475 |
| | |
| Profit/Cost | 20.2% |
| Profit/Revenue | 16.8% |

Discounted Cash Flow Analysis

- Evaluate project performance
- Pro Forma analysis focuses on the Present Value, to assess the project cash flow worth in **today's dollars**
- Assumptions
- Uncertainty and risk

Project Operation Pro Forma

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---|
| REVENUES | | | | | | | | |
| Base Rents | \$6,912,000 | \$7,119,360 | \$7,332,941 | \$7,552,929 | \$7,779,517 | \$8,012,902 | \$8,253,289 | |
| Parking Revenue | \$768,000 | \$783,360 | \$799,027 | \$815,008 | \$831,308 | \$847,934 | \$864,893 | |
| Potential Gross Revenue | \$7,680,000 | \$7,902,720 | \$8,131,968 | \$8,367,937 | \$8,610,825 | \$8,860,836 | \$9,118,182 | |
| Less: Vacancy | \$384,000 | \$395,136 | \$406,598 | \$418,397 | \$430,541 | \$443,042 | \$455,909 | |
| Effective Gross Revenue | \$7,296,000 | \$7,507,584 | \$7,725,370 | \$7,949,540 | \$8,180,284 | \$8,417,795 | \$8,662,273 | |
| EXPENSES | | | | | | | | |
| Building Expenses | \$2,560,000 | \$2,611,200 | \$2,663,424 | \$2,716,692 | \$2,771,026 | \$2,826,447 | \$2,882,976 | |
| Parking Expenses | \$640,000 | \$659,200 | \$678,976 | \$699,345 | \$720,326 | \$741,935 | \$764,193 | |
| Reserves | \$218,880 | \$225,228 | \$231,761 | \$238,486 | \$245,409 | \$252,534 | \$259,868 | |
| Property Tax | \$100,000 | \$103,000 | \$106,090 | \$109,273 | \$112,551 | \$115,927 | \$119,405 | |
| Total Expenses | \$3,518,880 | \$3,598,628 | \$3,680,251 | \$3,763,797 | \$3,849,311 | \$3,936,844 | \$4,026,443 | |
| NET OPERATING INCOME | \$3,777,120 | \$3,908,956 | \$4,045,119 | \$4,185,743 | \$4,330,972 | \$4,480,951 | \$4,635,830 | |
| Debt Service | -\$3,073,248 | -\$3,073,248 | -\$3,073,248 | -\$3,073,248 | -\$3,073,248 | -\$3,073,248 | -\$3,073,248 | |
| Before Tax Cash Flow | \$703,872 | \$835,709 | \$971,871 | \$1,112,496 | \$1,257,725 | \$1,407,704 | \$1,562,583 | |
| Building Sales Price | | | | | | \$77,263,840 | | |
| Remaining Loan Amount | | | | | | \$37,141,182 | | |
| Building Sale Proceeds | | | | | | \$40,122,658 | | |
| BTCF including Building Sale | \$703,872 | \$835,709 | \$971,871 | \$1,112,496 | \$1,257,725 | \$41,530,361 | | |

Land Cost

- Economic value “highest and best use”
- Value directly impacted by planning outcomes
- Residual Land Value

Hard Costs

- Bricks and Mortar
 - Physical construction costs
 - All costs associated including labour and materials

Soft Costs

- Commonly estimated as % of hard cost
- Construction Financing
- Permits, Fees, Property Taxes
- Professional Services
 - Planners, Lawyers, Architects, Engineers
 - Project Management
 - Insurance

| | | |
|-----------------------------------|--------------------|-----------|
| LAND | | |
| Lot Size | sf | 80,000 |
| \$/SF | | 37.50 |
| Land Acquisition | | 3,000,000 |
| | | |
| MAXIMIUM BUILDING SIZE | | |
| Parcel | sf | 80,000 |
| FSI | | 4.0 |
| Maximum GSF | | 320,000 |
| Efficiency | | 90% |
| Rentable SF | | 288,000 |
| Parking Spaces | space per 1000 GSF | 320 |

| | | |
|-------------------------------|----------|------------|
| PROJECT COSTS | | |
| Land Cost | | 3,000,000 |
| Hard Costs \$/gsf | \$85 | 27,200,000 |
| Parking Costs \$/space | \$30,000 | 9,600,000 |
| Soft Costs % of hard cost | 30% | 11,040,000 |
| Developer Fee | | |
| Development Fees \$/gsf | | |
| Project Costs Before Interest | | 50,840,000 |
| Construction Interest | 6.0% | 3,302,725 |
| Total Project Costs | | 54,142,725 |

Financing

- Equity
 - From developer or backers
- Debt
 - Construction (accumulates interest through draws)
 - Permanent (amortized)

Equity and Loan Calculation

- Loan to Value Ratio (LTV)
- Loan to Cost Ratio (LTC)

| | | |
|-----------------------|-----|-------------|
| Project Cost | | 54,142,725 |
| Loan to Value Ratio | | 80% |
| Loan Amount | | 43,314,180 |
| Equity | | 10,828,545 |
| Interest Rate | | 5.0% |
| Term | YRS | 25 |
| Loan Payment (annual) | | \$3,073,248 |

Project Operation

- Revenues
- Expenses
- Project Performance

Revenues

- Rents
 - Terms
 - Escalation
- Parking
- Other Income
- Vacancy Factor
 - Stabilized

Operating Revenues

| | | | |
|-----------------|-------------|--|---------|
| Rent | \$/sf/yr | | \$24.00 |
| Rent Escalation | %/yr | | 3% |
| Vacancy Factor | | | 5% |
| Parking | \$/space/yr | | \$2,400 |

Project Operation Pro Forma

| REVENUES | | | | | | | | |
|-------------------------|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Base Rents | | \$6,912,000 | \$7,119,360 | \$7,332,941 | \$7,552,929 | \$7,779,517 | \$8,012,902 | \$8,253,289 |
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Operating Expenses

- Calculated based on a \$/GSF
- Take into account factors associated with building operation
- Utilities
- Property taxes
- Insurance
- Building maintenance
- Repairs
- Replacement Reserve (contingency)
- Management
- Other expenses

Expenses

| | | |
|------------------------------|-------------|-----------|
| Building Operation Expenses | \$/gsf/yr | \$8.00 |
| Expenses Escalation Rate | %/yr | 2% |
| Parking Expenses | \$/space/yr | \$2,000 |
| Parking Escalation Rate | %/yr | 3% |
| Property Tax | | \$100,000 |
| Property Tax Escalation Rate | %/yr | 3.0% |
| Reserves | % of EGI | 3.0% |

Project Operation Pro Forma

| EXPENSES | | | | | | | | | |
|-------------------|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Building Expenses | | \$2,560,000 | \$2,611,200 | \$2,663,424 | \$2,716,692 | \$2,771,026 | \$2,826,447 | \$2,882,976 | \$2,940,635 |
| Parking Expenses | | \$640,000 | \$659,200 | \$678,976 | \$699,345 | \$720,326 | \$741,935 | \$764,193 | \$787,119 |
| Reserves | | \$218,880 | \$225,228 | \$231,761 | \$238,486 | \$245,409 | \$252,534 | \$259,868 | \$267,418 |
| Property Tax | | \$100,000 | \$103,000 | \$106,090 | \$109,273 | \$112,551 | \$115,927 | \$119,405 | \$122,987 |
| Total Expenses | | \$3,518,880 | \$3,598,628 | \$3,680,251 | \$3,763,797 | \$3,849,311 | \$3,936,844 | \$4,026,443 | \$4,118,160 |

Net Operating Income

- Project Performance Before Debt Service
- Project valuation
- $\text{NOI} = \text{Effective Gross Income} - \text{Total Operating Expenses}$
- Unleveraged project return

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
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| NET OPERATING INCOME | | \$3,777,120 | \$3,908,956 | \$4,045,119 | \$4,185,743 | \$4,330,972 | \$4,480,951 | \$4,635,830 |

Before Tax Cash Flow (BTCF) 'Cash Throw Off'

BTCF= Net Operating Income (NOI) - Debt Service

- Leveraged Project Return

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| Before Tax Cash Flow | | \$703,872 | \$835,709 | \$971,871 | \$1,112,496 | \$1,257,725 | \$1,407,704 | \$1,562,583 |

Return Rates

- Assess project performance
- Static based on single year cash flow
 - Rate of Return (ROR) based on project costs (unleveraged)
 - Return on Equity (ROE) based on cash invested (leveraged)
- Dynamic based on multi year cash flows
 - Internal Rate of Return (IRR) average annual return
 - Net Present Value (NPV) performance relative to discount rate

Project Performance

- Two components in a revenue generating project performance that are assessed:
 - Operation Cash Flow
 - Asset value based on an assumed sale price, captures project value appreciation based on a Cap Rate
 - Value = Net Operating Income/Cap rate

Cap Rate (k)

- Relationship between income at a particular time and property value
- Amount investors willing to pay based on income
- Appraisers calculate k for comparable sites and use that for the property under consideration
- Lower value represents stronger market

Cap Rate Calculation

$k = \text{NOI} / V * 100$, $V = \text{Property Value}$

NOI = \$250,000

Building sells for \$5,000,000

$k = 250,000 / 5,000,000$
 $= 5.0\%$

Building Sale

- Assume a sale at the end of the 6th year cap rate 6.0%
- Use projected NOI in the 7th year as the basis for calculating the sale price
- Value = NOI/cap rate
- Value = 4,480,951/.06 = \$77,263,840

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Project Return Rates

Use Excel built-in financial functions

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| Building Sale Proceeds | | | | | | | | \$40,122,658 | |
| BTCF including Building Sale | Leveraged | -\$10,828,545 | \$703,872 | \$835,709 | \$971,871 | \$1,112,496 | \$1,257,725 | \$41,530,361 | |
| | IRR Leveraged | | 30.0% | | | | | | |
| BTCF including Building Sale | Unleveraged | -\$54,142,725 | \$3,777,120 | \$3,908,956 | \$4,045,119 | \$4,185,743 | \$4,330,972 | \$81,744,791 | |
| | Unleveraged IRR | | 12.7% | | | | | | |
| | ROE | | 6.5% | 7.7% | 9.0% | 10.3% | 11.6% | 383.5% | |

Sensitivity Analysis

- Sensitivity analysis- what if...
 - How sensitive is return to assumption changes
 - Evaluate using Internal Rate of Return
- Change key variables to assess potential impacts
- Create scenarios that reflect potential risk