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Professional Practice 544

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The Economics of Construction

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* The provisions contained herein are taken directly from the AIA Document
A201 – 2007 General Conditions of the Contract for Construction.

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BUILDING TYPES

Buildings can be categorized on the basis of their economic equation. Look at the relation of profit in comparison to the building's function. Start with the original intent of the building's function.

1. **Intent:** Purely to function, not to earn: single family house, courthouse, library, etc.
2. **Intent:** Primarily to function, but also to make economic sense: hospital, nursing home, etc.
3. **Intent:** It must function and earn through its function: factory.
4. **Intent:** Primarily to earn as an investment, but also to function in order to be marketable: housing, office buildings, commercial buildings.

BUILDING TYPES

- Motives:** Profit (free market) versus Social Good (controlled economy)
- The equation still has to work to make economic sense
 - When losing money, the “owner” does not continue to maintain building

Roles of: Developer – Will be the “owner” in the beginning, but then turn over to new “owner.”

Market Analyst – Will assess when, what & where through market forces.

Mortgage Lender – Mortgage and construction loans

BUILDING TYPES

PRO FORMA

A Latin term meaning “for the same of form.” For financial considerations, it describes a method of calculating financial results in order to emphasize either current or projected figures.

The three main factors in a developer’s pro forma will be:

- Costs
- Expenses
- Income

The following is a typical list of items that will be found in a developer’s pro forma for a given project.

BUILDING TYPES

COSTS

Land Acquisition

Local Costs (utility extension, fee, etc.)

Construction Cost

Furnishings

Architect/Engineer Fee

Legal Expenses/Accounting

Misc. Costs (survey, borings, printing, etc.)

Marketing (personal, advertising, etc.)

Project Cost

+ Interest on construction loan

Total Cost (-mortgage = cash equity)

BUILDING TYPES

EXPENSES

Utilities (gas oil, water, electric, etc.)

Operations (engineer, doorman, etc.)

Repair and maintenance

Management office

Continued marketing

Insurance

Real estate taxes

Miscellaneous

Operating expense

+ mortgage retirement

Total Expense

BUILDING TYPES

INCOME

Apartment rental income

Office or commercial leases

Garage rental income

gross income

- vacancies (. . . %)

Net Income (or cash flow)

NET INCOME – TOTAL EXPENSE = PROFIT (= % OF EQUITY) –
growth is the hidden quantity here.

Return on Investment (“ROI”) - What will be your ROI? If you have a \$50K investment and growth is \$1M = 20X ROI. If you have \$100K invested in a project and the growth is \$1M = 10X ROI.

THE “ECONOMIC EQUATION”

Assume a 12-14 story apartment building at a good Evanston site containing 100 two-bedroom apartments of 1200 square feet, 100 parking spaces and 5,000 square feet commercial.

Hard Costs

Land:

\$25,000/Units at 100 \$ 2,500,000

Building:

Net Units: 100 at 1200 s.f. 120,000 s.f.

Circulation – add 20% 24,000 s.f.
144,000 s.f.

Common areas – add 7% 10,000 s.f.
(Corridors, elevators, etc. garbage shaft, stairs,
exterior walls, lobby, garbage, janitorial lockers)

Commercial 5,000 s.f.

Total 159,000 s.f.

Garage: 100 @ 350 s.f. 35,000 s.f.

159,000 s.f. @ \$120.00 \$19,080,000

35,000 s.f. @ \$70.00 \$2,450,000

TOTAL HARD COSTS \$24,030,000

Soft Costs:

Construction Loan (\$24,030,000):

7.0% Amount “halved” b/c
drawn progressively \$841,050

Lender’s Fee:

1.5% of full loan \$360,450

Architect’s Fee:

4.0% of Construction Costs \$961,200

Legal \$50,000

Marketing \$50,000

Miscellaneous \$120,000

TOTAL SOFT COSTS \$2,382,700

TOTAL HARD COSTS \$24,030,000

TOTAL PROJECT COST \$26,412,700

THE “ECONOMIC EQUATION”

INCOME

Apartment Rents: \$1,600/month at 100 at 12:	\$ 1,920,000
Garage: \$200/ month at 100 at 12:	\$ 240,000
Commercial:	\$ <u>100,000</u>
Subtotal:	\$ 2,260,000
Less 5% vacancy:	\$ - <u>113,000</u>
<u>TOTAL INCOME:</u>	<u>\$ 2,147,000</u>

EXPENSES

Management: salaries, utilities, maintenance, taxes, etc. 40% of income: 40% of \$2,147,000:	\$ 858,800
Mortgage Retirement: 85% of \$26,412,700 = \$22,450,795 x 6%:	\$ <u>1,347,050</u>
<u>TOTAL EXPENSES:</u>	<u>\$ 2,205,850</u>

THE “ECONOMIC EQUATION”

BALANCE

Income: \$ 2,147,000

Expenses: \$ 2,205,850

Loss: (\$ 58,850)

Equity: 15% of \$26,412,700 = \$3,963,405

This is almost a 1.5% loss/year of investment

CONCLUSION

Compared to risk-free savings accounts or bonds, this is a poor investment. Can it be improved and have it still marketable?

THE “ECONOMIC EQUATION”

How about trying higher rent?

INCOME

Apartment Rents: \$2,000/month at 100 at 12:	\$ 2,400,000
Garage: \$200/ month at 100 at 12:	\$ 240,000
Commercial:	\$ <u>100,000</u>
Subtotal:	\$ 2,740,000
Less 5% vacancy:	\$ - <u>137,000</u>
TOTAL INCOME:	<u>\$ 2,603,000</u>

EXPENSES

Management: salaries, utilities, maintenance, taxes, etc. 40% of income: 40% of \$2,603,000:	\$ 1,041,200
Mortgage Retirement: 85% of \$26,412,700 = \$22,450,795 6%	\$ <u>1,347,050</u>
TOTAL EXPENSES:	<u>\$ 2,388,250</u>

THE “ECONOMIC EQUATION”

How about trying higher rent?

BALANCE

Income: \$ 2,603,000

Expenses: \$ 2,388,250

Gain: \$ 214,750

Equity: 15% of \$26,412,700 = \$3,963,405

This is almost 5.5% gain/year of investment

CONCLUSION

This is not a *great* investment. But if one considers the value of the real estate which increases more rapidly than money in the bank, it might make sense to certain people who are not looking for liquidity.

THE “ECONOMIC EQUATION”

CONDOMINIUM

Hard Cost (Same):	\$24,030,000
Soft Cost (Same with increases)	\$ 2,382,700
Increases:	
Broker: 6% of \$24,030,000	\$ 1,441,800
Legal:	\$ 25,000
Surveyor (vertical survey):	\$ <u>75,000</u>
 Sub-total:	 \$27,954,500
 Add 15% Profit:	 \$ <u>4,193,175</u>
Total:	\$32,147,675

$32,147,675 / 100 =$ approximately \$320,000/apartment. This is a reasonable assumption in Evanston.

THE “ECONOMIC EQUATION”

Ownership → Care for building

- Apartment building landlords don't maintain
- Slumlords
- But even condo boards hesitate to spend.

Condo litigation crisis

- Developers cut corners and oversell
- Attorneys scare boards into lawsuits