

Making The Numbers Work



Patrick McAnaney
Somerset Development Company
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Presentation Outline

1. Affordable Housing Finance 101: Understanding the Tools
2. Example: Building a 3 Bedroom Affordable Apartment in DC
3. Affordable vs. Market-Rate Projects: Competition or Cooperation?

1. Affordable Housing Finance 101

Understanding the Tools

Like Buying a Home, New Buildings Are Financed With Debt and Equity

Debt

- When Buying a Home: Depends on **Monthly Income** and **Interest Rates**
- When Building a Building: Depends on **Projected Monthly Income**
 - **Income** = **Revenue** (Rent) – **Expenses** (Maintenance Costs, Taxes, etc)
- Debt Often **Capped** at % of Total Project Cost (Usually 60%)
- For Affordable Projects: Lower Rents → Lower Income → **Smaller Loan**

Equity

- When Buying a Home: **Down Payment**
- When Building a Building: Often Raised From **Institutional Investors**
 - With Debt Caps, Can Be **Up to 40% of Total Project Costs**
 - Some Very Large Developers Use **Internal Funds**
 - Many Institutional Investors are **Pension Funds**
 - Often Expect **12-15% Annual Return** – Premium vs. Real Estate Stocks
 - Higher Return Needed to **Compensate for Higher Risk**

Equity

- For Affordable Projects, Equity Returns Usually **Not Sufficient** to Attract Investors
- Why?
 - Making a 12-15% return depends on selling the building for a **significant profit**
 - With long-term affordability, **limited projected increase in income** to increase the value of the property
 - Thus, usually **not a good investment opportunity** vs. stocks
- Instead, affordable housing developers often use **Low Income Housing Tax Credits (LIHTC)**

Low Income Housing Tax Credits (LIHTC)

- Created in 1986 as part of a broader tax reform bill
- Goal is to **provide equity investment** to support affordable housing projects
- Investors (companies) provide funding to projects in exchange for a reduction in their **corporate tax bill**
- Most investors are banks that can use the program to meet federal legal requirements to invest in historically neglected communities (**Community Reinvestment Act**)

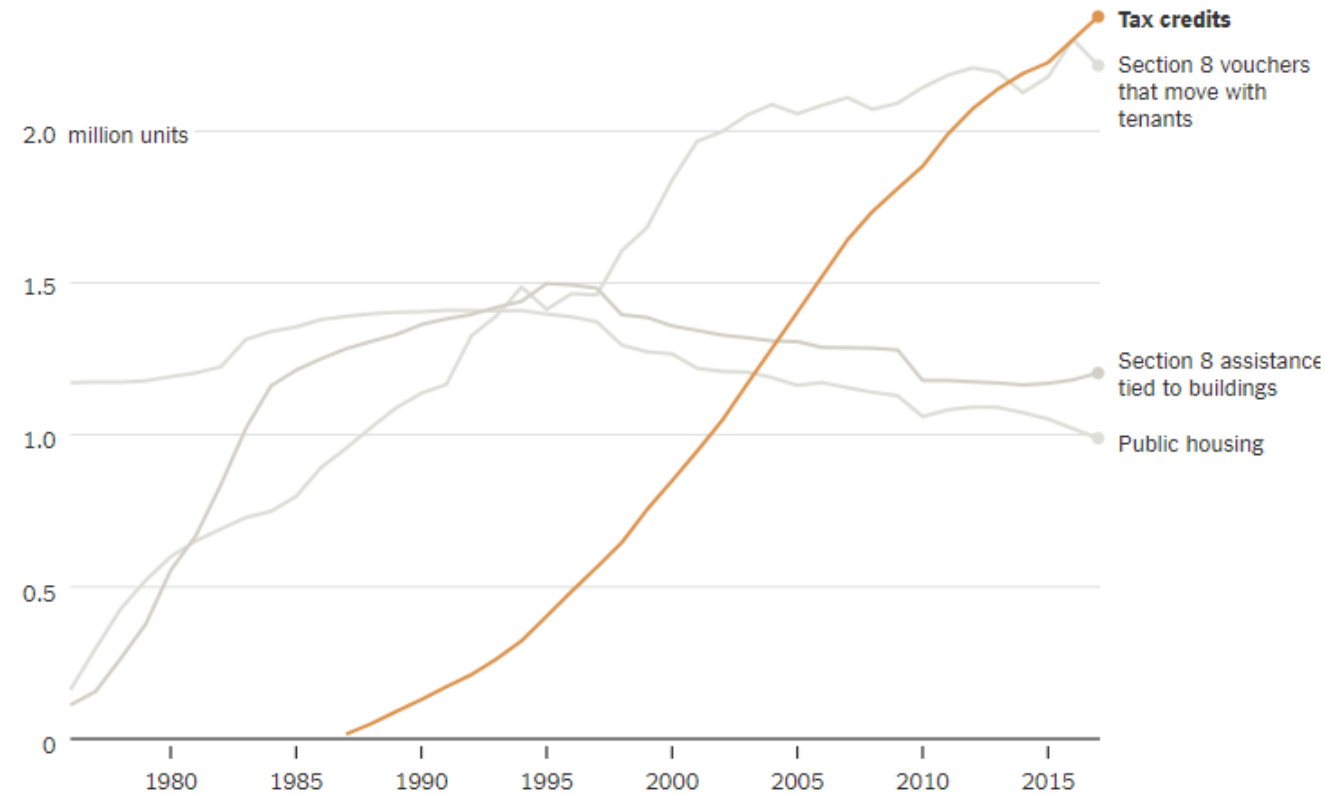
Low Income Housing Tax Credits (LIHTC)

- The investor **provides equity investment** in the project **in exchange for the credits**
- Total credits generated (i.e. total equity) is calculated based on project's **Total Development Costs**
 - Excludes ineligible uses, such as most legal fees, bank fees, taxes
- The investor then becomes a **co-owner** of the property
 - Usually, investor becomes the “Limited Partner”
 - Developer is the “General Partner” who operates building on behalf of investor
 - Both investor and developer share in cash flow proceeds
- Program timeline:
 - Investor receives credits for **first 10 years** (“Credit Period”)
 - Credits can be revoked if property not in compliance with program during **first 15 years** (“Compliance Period”)
 - Apartments must remain affordable for **30 years** (“Extended Use Period” after Compliance Period)
 - Typically, investors want to **sell their share and exit the deal** after Year 15 – view LIHTC as a 15 year investment

LIHTC is now the largest federal affordable housing program

The Changing Shape of Housing Assistance

Affordable units built by developers with the help of tax credits house more low-income households than other major housing assistance programs in America.



Additional Gap Financing

- Mortgages and LIHTC equity are usually **not sufficient** to fully cover costs
- Projects need to find ways to fill this “**gap**” between Sources and Uses
- Three sources of gap financing:
 1. Grants
 2. Operating Subsidies
 3. Subordinate Debt (“Second” Mortgage)

1. Grants

- Often depend on a specific aspect of the project, such as green building goals or specific population served
- Can be from private foundations or local and state governments
- There are also federal grant programs, such as Community Development Block Grants (CBDG) and the Home Investment Partnership Program (HOME)
- Often, developers have to **line up several grants** to fill the gap

2. Operating Subsidies

- **Project-Based Vouchers:** The government supplements tenant rent for a particular unit
- Depending on length of the contract, Project-Based Vouchers can count as a stable long-term revenue source for the project, so the voucher **boosts income** and supports a **larger mortgage → Reduces gap financing need**
- **Tax abatement:** Reduces property tax bills, lowering operating expenses
- By reducing expenses, the tax abatement **boosts income** and supports a **larger mortgage → Reduces gap financing need**

3. Subordinate Debt

- Subordinate Debt is a **second mortgage** that gets paid off only after the first mortgage
- DC Housing Production Trust Fund is a **revolving loan fund** that provides gap financing
 - Generally better terms than traditional bank mortgage: lower interest rates and more flexible repayment that depends on the property's financial performance
- Ex: Housing Production Trust Fund standard repayment is 75% of the property's cash flow after first mortgage debt service
- By providing this gap financing as a loan rather than a grant, the Trust Fund can grow over time so **proceeds can be reinvested** to support more affordable housing projects

Affordable Housing Development: Sources and Uses

Sources

- First Mortgage
- 4% LIHTC Equity
- Green Building Grant
- + HPTF Second Mortgage

Total Funding Sources

Uses

- Land/Property Acquisition
- Construction Costs
- Design, Permitting, Insurance and Legal Costs
- Financing Costs
- Reserves (Construction and Operations)
- + Developer Fee

Total Development Costs

=

2. Example: Building a 3 Bedroom Affordable Apartment in DC

Model Assumptions

- **Apartment Size:** 1,000 sq. ft.
- **Affordability:** 50% of Area Median Income (AMI), ~\$71,000 income for 4 people
- **Building Type:** Low-rise wood frame apartment, \$245 per sq. ft. construction costs
- **Operating Subsidy:** 100% Property Tax Abatement (available to non-profits in DC)
- **Acquisition Cost:** \$0, Land given away for free (more info on land value later)
- **Mortgage Terms:** 5.5% APR, 40 year amortization

Operating Budget

Gross Rent: \$1,960 monthly (50% AMI limit with no tenant-paid utilities)

Net Rent: \$1,810 monthly (\$150 deduction for tenant-paid utilities)

Annual Rent: $\$1,810 * 12 = \$21,720$

Annual Operating Expenses: \$9,000

Net Operating Income (NOI): $\$21,720 - \$9,000 = \$12,720$

Development Budget

Total Square Footage: 1,176 (assumes 85% is “core” residential space → $1,176 * 85\% = 1,000$)

Construction Costs: \$245 per sq. ft.

Construction Contingency: 7% of total construction budget

Design, Permitting and Other “Soft” Costs: 15% of total construction budget

Financing Costs (Construction Interest, Fees): 12% of total construction budget

Total Development Costs: $(1,176 * \$245) * (1 + 7\% + 15\% + 12\%) = \mathbf{\$386,081}$

Financing Sources

NOI: \$12,720 (See Operating Budget)

First Mortgage: \$171,265 (Calculation based off NOI, 5.5% interest, 40 year amortization)

LIHTC Equity: \$127,742 (Calculation based off Development Budget, LIHTC credit pricing)

Total Sources: \$171,265 + \$127,742 = **\$299,007**

Note: Specific formulas for mortgage sizing and LIHTC equity not shown

Sources and Uses

Sources

First Mortgage = \$171,265

4% LIHTC Equity = \$127,742

+ **Gap = \$87,074**

Uses

Land Acquisition = \$0

Construction Costs = \$288,120

Soft Costs = \$43,218

Financing Costs = \$34,574

Construction Contingency = \$20,168

+ Developer Fee = \$0

Total Funding Sources = \$386,081 =

Total Development Costs = \$386,081

Understanding the Gap

- **Key Takeaway:** It costs more to build an affordable 3-bedroom apartment in DC than that unit earns in rent to pay for its construction
- Factoring in average land costs (~\$100,000 per unit), the gap realistically is closer to **\$187,074** rather than \$87,074
- The model also assumes \$0 in operating reserves (dangerous for long-term management) and \$0 in developer fee (developer earns no revenue)
 - **Not realistic** assumptions
 - Brings gap above **\$200,000**

Other Factors Affecting The “Gap”

- **Construction Costs:**

- Taller buildings that use steel and concrete (above 5 stories) have **higher costs** per square foot, resulting in a larger gap
- \$325 rather than the \$245 in our wood frame example
- Davis Bacon federal wage rules for 5+ story buildings push this up to \$350+
- Underground parking also **very expensive** (\$50,000-\$70,000 per space)

Other Factors Affecting The “Gap”

- **Deeper Income Targeting:**

- Deeper affordability (ex: 30% AMI) will reduce revenue → **Smaller mortgage**
- This can be offset with **operating subsidies**, usually reserved for 0-30% AMI

- **Interest Rates:**

- Higher interest rates → **Smaller mortgage**
- Over last two years, **big increases in interest rates** have dramatically increased gap financing costs per affordable unit

3. Affordable vs. Market-Rate Housing

Competition or Cooperation?

Land Value Basics

- A single piece of land is **exclusive**: only one development can be created on a given site
- When multiple, mutually exclusive projects bid on land, **only one can be selected**
- Ex: A specific plot of land can be a farm or a building or a park, but not **all three at once**
- Land value is determined by the “**highest and best use**” – the use of the land that will result in the maximum price

“Highest and Best Use” Analysis

- When different projects are modeled for the same piece of land, land value is determined by whatever the project can **afford to pay** for the site
 - Assume that all other factors (construction costs, projected rents and expenses) are **inputs**
 - Land price is the **output** of the model
- Ex: Three projects considered for a vacant lot:
 - Apartment building can afford to pay **\$5 million**
 - Office building can afford to pay **\$4 million**
 - Factory can afford to pay **\$2 million**
- The land is valued at **\$5 million** based on the expected “highest and best use” as apartments
- Because the office and factory projects cannot pay \$5 million for the project (based on financial models), they are **financially unviable** and thus cannot proceed

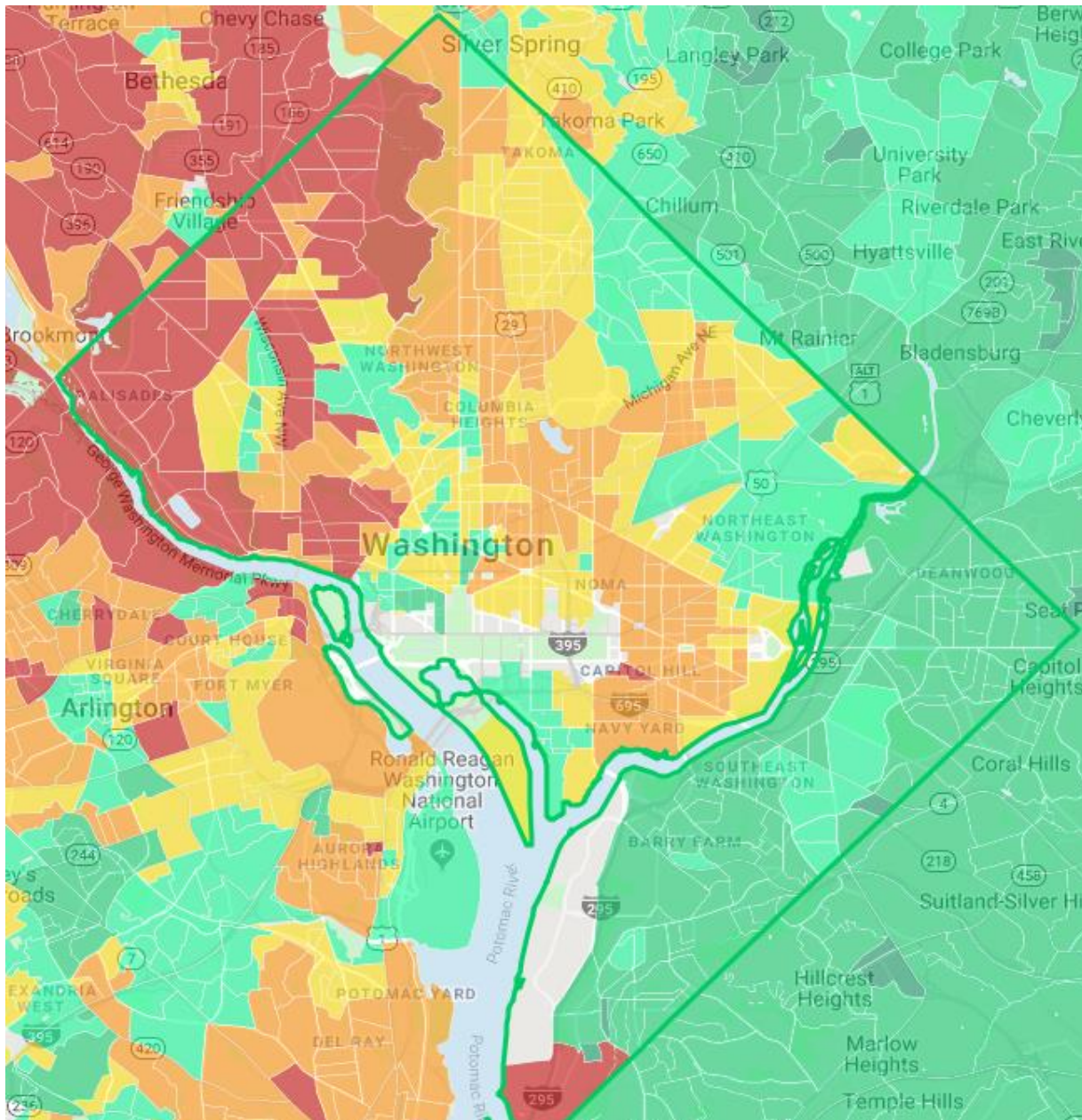
Comparing Land Value for Apartment Projects

- Highest and Best Use analysis also applies to comparisons **between similar projects**
- Ex: Compare three proposals for a 180-unit 4 story building with same unit mix
 - Project 1 Rents: \$1,900 for studio, \$2,400 for 1 BR, \$3,400 for 2 BR units
 - Project 2 Rents: \$1,500 for studio, \$2,000 for 1 BR, \$3,000 for 2 BR units
 - Project 3 Rents: \$1,200 for studio, \$1,800 for 1 BR, \$2,500 for 2 BR units
- All other inputs **held constant**: construction costs, interest rates, equity returns, etc
- Resulting land value (output of model):
 - Project 1: **\$17.5 million**
 - Project 2: **\$5 million**
 - Project 3: **\$0** (Actually, negative → “Gap” financing needed)
- As a result, the land is worth **\$17.5 million** and **only Project 1 is viable**

Implications of Land Value Analysis

- This “Highest and Best Use” Analysis helps explain why cheaper market-rate projects are **not getting built in DC**
- Because high-rent projects are able to **outbid** lower-rent projects for land, high demand for housing in certain neighborhoods makes building cheaper housing in those neighborhoods **financially unfeasible**
- But **increasing supply lowers rents overall**, which brings down land values and makes both market-rate *and* affordable housing projects more viable
- Increasing supply makes it **easier to finance affordable housing projects**

Median Listing Price
< \$75K  \$1.5M+



Source: Trulia.com

Conclusion

- To build dedicated deeply affordable housing, **significant amounts of subsidy are needed**
 - Federal: Low Income Housing Tax Credits and Tax-Exempt “Private Activity Bonds”
 - State/Local: Subordinate Debt, Operating Subsidies, Property Tax Abatements
- Even removing “**Speculation**” (Land Value) and “**Developer Profit**” (Developer Fee) from the Sources and Uses equation, affordable housing projects still require subsidy
- Affordable housing development is dramatically impacted by **macroeconomic conditions** (inflation, interest rates, land values)
- Market rate and affordable housing are **not either/or**
 - Increasing supply helps to lower land prices and make affordable housing more viable