Determining if a Development is Worth a Public Investment

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strategic partners

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Overview

- Background
- Financial Feasibility
- Key Terms
- Example
- Economic Impact
- Questions





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Hunden Partners - Areas of Expertise

Master Placemaking

Physical Programming

Market Feasibility

Financial Feasibility

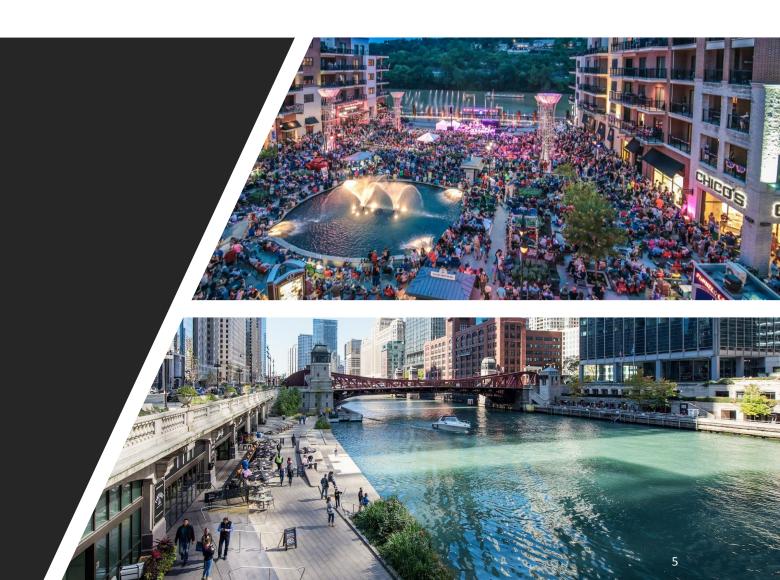
Funding Options/Public Incentives

Economic & Fiscal Impact Analysis

RFQ/P Processes

Partnership Options

Business Plans





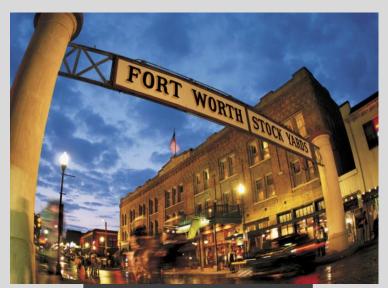
HSP.... Host, Stay, Play







San Juan





Kentucky



Fort Worth

strategic partners

Madison



Rob Hunden, President & CEO

Public and Private Sector Employment Experience

City of Indianapolis Bond Bank/Mayor's Office 1996 - 1998

Capital Markets, Consulting 1999 - 2005

Hunden Strategic Partners – 2006 - Present

25 Years of Industry Experience Nationwide

600+ Projects and Studies

Speaker, Teacher and Author

Move projects from Concept to Reality





How to Know if Project is Worth the Public Investment?

The public sector has a key role to play in real estate development and that role has been growing over the past 50 years.

The public sector often gets involved for one of two reasons:

- There is a challenging site or area that the private sector will not touch (brownfields, too many small parcels to acquire or difficult/old buildings, bad location or adjacent uses). Often this area is blocking development in other areas or is a key linkage from one area to another.
- There is a challenging project that the city or public/private forces want to build, but the project is not commercially viable:
 - Arena/Stadium
 - Convention Center
 - HQ hotel, high-end hotel or other hotel
 - Youth Sports Complex
 - Major Park and/or Recreation Development
 - There is a combination of both!
- Project that would be feasible in the suburbs, but does not work downtown (mall, hotel, etc.)
- All of the above!



How do you know if a project is worth the investment?

- There are two major ways to assess the return on investment for a project:
 - **Private Sector's Return:** These are the financial returns generated from the building/business itself. If there is a private sector financial gap, the public will be asked to fill the gap.
 - Public Sector's Return: These are the positive returns to the community via new taxes, jobs, spending, improved neighborhood, quality of life, etc. Some are measured (\$), while others, like quality of life/city/'hood are felt!



What does financial feasibility mean?

- A project is feasible if it generates enough profit (net cash flow) to pay off the cost of the project, plus an additional amount to repay the interest on the bank loan and the risk associated with the equity investment.
- Alternatively, a project is not feasible it cannot generate enough to pay for the cost of the project plus loan interest and an equity return.
- Projects that do not generate positive cash flow (convention centers, performing arts facilities, museums, sports facilities, etc.) have essentially zero or negative market value, as they cannot pay for themselves. This is why the public sector takes these on as quality of life investments.



So give me some context....

- A project is expected to pay for itself, pay its loan costs and pay equity a minimum return, over a ten-year time horizon.
- A \$10 million building would need to generate:
 - \$10 million in profit over 10 years to pay for itself
 - Plus bank interest
 - Plus developer equity







- Private available equity (cash) to invest in a project is scarce.
- That money can be invested in many safe places to get returns that are predictable and are greater than the rate of inflation.
- In fact, return on equity is often expected to be 15 25%, given the risks involved. Remember, equity does not have to repaid. If the project fails, all that money is wiped out. The bank has the first right to any funds in a bankruptcy (and one of the reasons their money costs less!)





- The benchmark for safe investing is the 10-Year U.S. Government Treasury bond.
- The interest rate payable on that bond dictates nearly every other investment, including the stock market as a whole and all real estate investments.
- Nearly all real estate is valued on a ten-year time-horizon (all appraisals use a ten-year cash flow projection to determine value).
- The 10-Year Treasury is considered essentially risk-free.
- So, for zero risk, an investor can currently get about a 3.00% nominal return on their money.
- Inflation, which reduces the purchasing power of money over time, is currently about 2.2%.
- Meaning that an investor in Treasuries can get an inflationadjusted, or real return of 0.8% per year at essentially no risk.





- This relationship is critical: Treasuries vs. Inflation and Treasuries vs. all other investments).
- The reason that the stock market tends to go up and down violently when interest rates change is due to this relationship.
- When the Fed (Federal Reserve Bank) and/or bond market push up interest rates, the relative value of all risky-oriented investments goes down, and vice versa.
- When interest rates go down, the value of risk-oriented investments goes up.
- Why invest in something risky when you can get a return without the risk. As interest rates go up, they become more and more attractive versus stocks and real estate.



The long history of long (10-year US treasuries) yields 18 Federal Reserve System created: US Fed Chairman Volker increased 1981: 1913 the Fed funds rate to a peak of 15.8% 16 20% in 1981 to get double-digit inflation under control 14 1984: Volker hiked rates to 13.9% restrain the Panic of 1857 economic recovery followed by Panic of 1837 Depression and ensure inflation followed by would remain low ('57-'60); key 12 Depression causes were 2nd oil shock and Iran ('37-'43); Recession following declining Depression hostage crisis causes were oil shock US Panic of 1796international of 1920-21; ('79-'80)restrictive Depression 1797; US real economy, Fed hiked 1st oil shock Unexpected rate hiking lending policies 10 late 1780s estate collapse failure of a large rates to ('73-'74)in Great Britain. cycle as economic growth US bank, and Panic of 1907; 1790: and ensuing control postimproved following '91 decline in Fed hikes as downturn in the Failed attempt Depression war 1994 recession cotton prices. economy railroad to corner the 1798: inflation; speculative heated up Start of a rate market on the industry returning 8 8.1% lending 1969: hiking cycle as stock of a soldiers 1861: 7.9% inflation crept up 1842: large company weighed on 6.6% with economy generated wages recovering from Vletnam war; The Great 1986: bank losses, a The Great 1920: '01 rescssion **US** combat 7.0% (railroad) strike crisis in Depression 2004 involvement Low in policy 1877: confidence in ('29-'41)('65-'73)rate cycle banks and 1932: 4.5% 1971: bank runs 5.5% 1993: 1907: US 1821: 5.3% 5.5% 1869: 4,6% abrogation Low in policy US First 4.2% 1835: of Bretton rate cycle Civil War Bank of Gold 3.7% Woods Panic of 1819 4.0% (1860-1865): following '91 wwi crash 1900: 2010: following the end of US forced off of recession 2.5% QE2 United 2.9% ('14-'18)the War of 1812 and economic the gold standard 2003: States: 3.5% Low in policy rate mismanagement of 2008: 1791 2012: the Second Bank of cycle following tech 1.7% 1.6% the United States WW II ('41-'45) bubble bursting QE3 QE1







- The riskier the bet, the more reward is expected
- The safer the bet, the lower the reward
- So how do we know what investments are risky?
- Let's think through it for a minute....



Risk Profiles in Real Estate

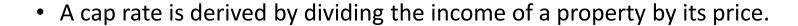
- The most risk-free real estate investment is an "Absolute Triple-Net (NNN)" deal. Why?
- One tenant with a long-term lease who pays for everything and requires nothing of the owner.
- The riskiest real estate investment is one where you don't have a guaranteed tenant or the tenancy changes often.
- First let's look at some key terms....



A Cap Rate is multiple ideas all wrapped into one key term!





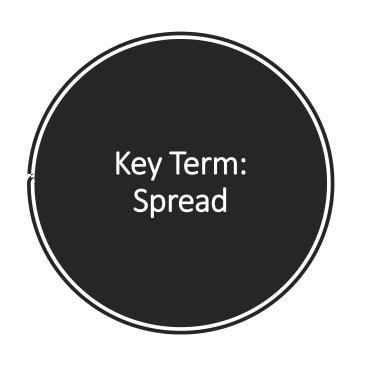


- The higher the cap rate, the higher the implied risk and reward
- The lower the cap rate, the lower the implied risk and reward:

Why pay \$200,000 for an asset producing on \$10,000 per year vs. one that produces \$20,000? The perceived risk.







A "spread" is the difference in yield (return) between a 10-Year Treasury and a riskier asset, such as real estate. Also known as credit spreads.

The total return is the cap rate and is made up of the ten-year treasury (about 3% today) and the spread (ranges from 2-7%).

- It is a measure of the implied incremental risk/reward of an asset over the benchmark "no-risk" investment.
- It is measured in basis points. A basis point = 0.01% For example, when the Fed raises interest rates by 0.25%, they are raising them by 25 basis points or 25 bp. A credit spread might be 400 bp over the Ten-Year, leading to an interest rate of about 7.00%
- The least risky real estate types have a lower credit spread, since they do not need to offer higher rates to attract investors, while riskier real estate projects offer higher rates to compensate investors for their increased risk. For borrowers/developers, a larger credit spread often means a higher interest rate.





A variety of factors can affect credit spreads, and, as a result, loan interest rates. These include:

- Inflation: Changes in inflation can affect market-wide supply and demand, which can have a trickle-down effect on loan rates/spreads.
- **Economic Uncertainty**: If the economy begins to falter, investors may begin to flock to U.S. treasury bonds, driving down their rates, and therefore increasing the difference between treasury bond and yields.
- Loan/Bond maturity: Spreads are typically larger for loans/bonds that have longer maturities, as this increases the amount of risk for potential borrowers.
- Quality/rating: Commercial mortgage backed securities (CMBS)
 composed of loans taken out by higher risk borrowers will naturally
 have a larger credit spread than those composed of lower-risk loans.



The kind of real estate that economic developers want in their community are typically the riskiest types!! Why, you ask?

So What Are the Riskiest Real Estate Types?

Yours, of Course!

- Unique: Most communities want something special and unique; not just a typical McDonalds or Hampton Inn. Trouble is, those are predictable and banks like predictability. In turn, they offer attractive loans to developers who build predictable (boring!) projects.
- Unproven Market or Location: You want to develop your project in a pioneering location downtown or elsewhere without similar projects surrounding it, performing well. Again, banks and developers like proven markets and locations. You are a pioneer and that is risky!
- Rents/Market Performance: The cost of development is higher than the income/rents will support. This is a gap that must be filled. Too risky!
- **Site or Other Hurdles**: The site may have issues, the city/county may want special design or building materials or structured parking. Any hurdle that costs money or time makes something risky!



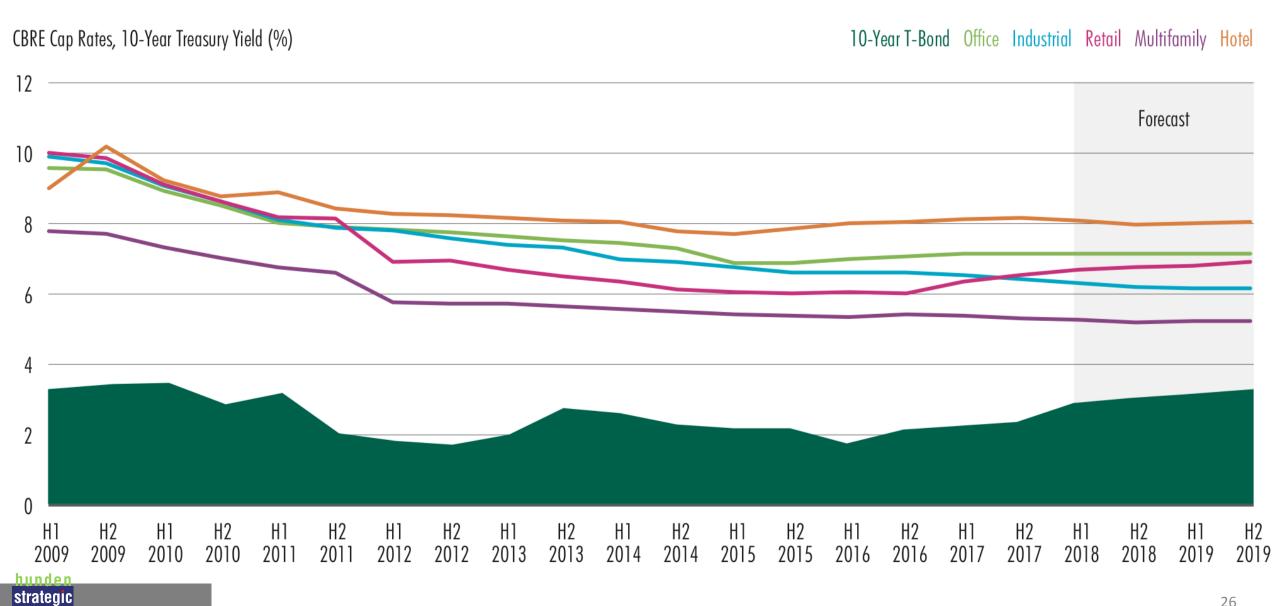
Ha ha, ok, very funny, but seriously, what are the riskiest asset types?

Spreads tell us what assets the market finds to be riskiest. These spreads are a snapshot in time and can change radically over time.

- **Hotels**: These are the *riskiest* because they have no long-term leases, or guaranteed income. They lease out each room once per night. When times are good, they crank out cash. When things are tough, they can be hit the hardest and fastest.
- Office: Currently the second-riskiest, despite the long-term leases. Mega-trends like WeWork and work-from-home options means companies need less space than they used to. Investments also going to safer bets with attractive yields.
- **Retail**: While the death of retail has been exaggerated, it is under pressure with major chains going bankrupt, and that has increased the risk level in this asset type. Retail and office have similar risk spreads today.
- Industrial: The second safest asset class, industrial is booming due to the Amazon and overall home delivery megatrend. Long term leases help insulate this group from stress during downtimes.
- **Multifamily** (Apts): For more than 10 years, apartments have been on a tear and there is still more perceived demand than supply. Rents have been increasing. While this sector could be hit hard by a pull-back, due to shorter leases, it is still the darling of the market.



FIGURE 6: CAP RATES FLAT BUT SPREAD OVER 10-YEAR TREASURY YIELD HAS NARROWED



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FIGURE 7: SEVERAL ECONOMIC FACTORS IMPACT CAP RATE MOVEMENT

Factor	Effect	Importance	Correlation	Impact on Cap Rates in 2019
10-Year Treasury Yield	Risk free rate	High 🛕	Positive (Treasury up, cap rates up)	Upward pressure
AAA/Bond Spread	Economy-wide risk measure	Medium 🛕	Positive (spread up, cap rates up)	Mild upward pressure
Inflation	Pushes up rent	Low	Negative (inflation up, cap rates down)	Neutral
U.S. Dollar	Affects price paid by foreign capital	Low	Positive (dollar up, cap rates up)	Mild upward pressure
Quantitative Easing	Affects demand for risky assets and sentiment	Low	Negative (QE up, cap rates down)	Mild upward pressure
Change in Unemployment Rate	Indicates economic strength and confidence	High 🛕	Positive (unemployment down, cap rates down)	Downward pressure
Debt Growth	Increases liquidity	High	Negative (debt up, cap rates down)	Downward pressure
Real Rents	Pushes up asset values	Medium	Negative (rent up, cap rates down)	Downward pressure



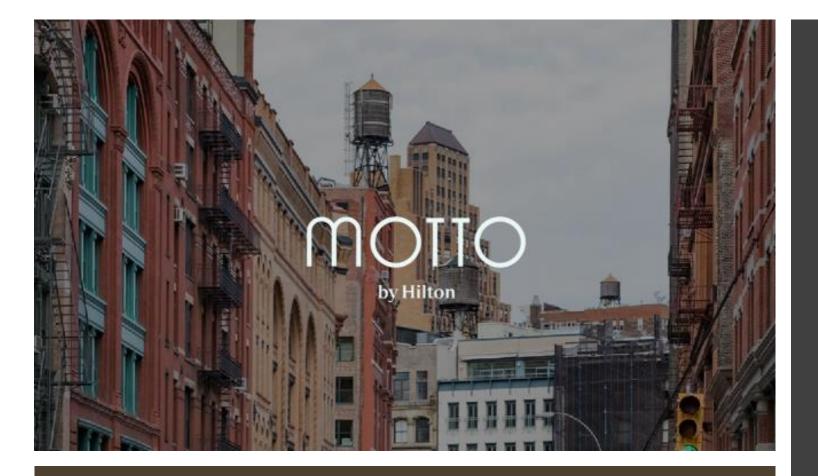
How much does the loan interest rate matter?

- Note that "investment grade" **multifamily** loans were averaging 5.25% and investment grade **hotel** loans were averaging about 8%.
- On a \$10 million loan (25-year term):
 - 5.25% interest rate = \$727,000 per year in debt payments
 - 8.00% interest rate = \$937,000 per year in debt payments
 - A difference of \$210,000 per year in profit necessary to pay the loan!





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Ok so now let's take an example hotel...

- Hotel will have 100 rooms (keys)
- Cost per room = \$250,000
 (hip boutique/upscale/branded like Moxy or Motto)
- Total Cost = \$25 million

What does the bank need to know?





Banks are like cities. They don't care about sharing upside. They care about avoiding risk.

As such, they want to be sure that their loan is paid with plenty of protection.

So what do they require?

Debt Coverage Ratio (DCR)

- Hotel will have 100 rooms (keys)
- Total Cost = \$25 million



- Just like when you go to buy a house, the bank wants to be sure you have more than enough money coming in each month to pay your mortgage (typically by a wide margin), they want the same thing from a business or real estate project.
- They express the margin as "coverage" and the debt coverage ratio as typically somewhere between 1.15x and 1.5x debt service.
- So for example, if the loan costs \$100,000 per year and the bank requires 1.4x DCR for hotel loans, they would want to be sure that your projected profit (net cash flow) each year was at least \$140,000.
- Make sense? That way, even if business is down, you and they have a cushion.
- Also, banks won't lend more than a certain percentage of the total value or cost of a project. That's called LTV (Loan to Value). That is why banks appraise projects. They loan against the expected value.
- Typically this is 50 90%. The safest projects get up to 90%. The riskiest, as low as 50%.



What does the developer and/or private equity need?



Hotel will have 100 rooms (keys)

Total Cost = \$25 million

For *new* projects, Developers need a return on equity of 15 – 25%, but the minimum is usually 15–18%, depending on the project type. Apartments are the lowest hurdle and hotels the highest, due to level of risk and cost of loans.

They need this to repay their equity in full, plus a profit of 15+% on it, on average, over ten year or their holding period. For *existing* real estate, the risks are lower, so the return on equity expectation is much lower as well.

So in order to determine supportable debt and equity, we start with the bank loan, then go to equity.

	Constr. Yr1	Constr. Yr2	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Net Operating Income	\$0	\$0	\$2,030	\$2,091	\$2,154	\$2,218	\$2,285	\$2,353	\$2,424	\$2,497	\$2,572	\$2,649	\$23,272
nterest and Debt Reserve W/D	\$333	\$998	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
	\$333	\$998	\$2,030	\$2,091	\$2,154	\$2,218	\$2,285	\$2,353	\$2,424	\$2,497	\$2,572	\$2,649	
Debt Service Payment	(\$333)	(\$998)	(\$1,483)	(\$1,483)	(\$1,483)	(\$1,401)	(\$1,401)	(\$1,401)	(\$1,401)	(\$1,401)	(\$1,401)	(\$1,401)	
Net Income to Repay Equity	\$0	\$0	\$547	\$607	\$670	. \$817	\$883	\$952	\$1,023	\$1,095	\$1,170	\$1,247	\$9,01
Princ. Amount***	\$3,500	\$10,500	\$14,000	\$13,847	\$13,679	\$13,490	\$13,337	\$13,169	\$12,986	\$12,786	\$12,567	\$12,328	
nterest	\$333	\$998	\$1,330	\$1,315	\$1,299	\$1,248	\$1,234	\$1,218	\$1,201	\$1,183	\$1,162	\$1,140	
_ess Payment	(\$333)	(\$998)	(\$1,483)	(\$1,483)	(\$1,483)	(\$1,401)	(\$1,401)	(\$1,401)	(\$1,401)	(\$1,401)	(\$1,401)	(\$1,401)	
Loan Balance	\$3,500	\$10,500	\$13,847	\$ 13,6 7 9	\$13,495	\$13,337	\$13,169	\$12,986	\$12,786	\$12,567	\$12,328	\$12,067	
Assumptions						Refi							
_oan Amount (\$000's)	\$14,000					\$13,490							
Amortization Period (Years)	25					25							
_oan Interest Rate	9.50%					9.25%							
Annual Debt Service Payment (\$000's)	(\$1,483)					(\$1,401)							
Equity:	¢F 000	0.00/											
Developer's Equity (\$000's)	\$5,000	20%											
Private Debt	\$14,000	56% 76%											
Total Supportable Private Financing Gap/Subsidy/Grants	\$19,000 \$6,000	24%											
Project Amount (\$000's)	\$25,000	100%											
		_											I0-Yr Av
Debt Coverage Ratio			1.37	1.41	1.45	1.58	1.63	1.68	1.73	1.78	1.84	1.89	1.6
Return on Private Equity/Leveraged IRR*			10.9%	12.1%	13.4%	16.3%	17.7%	19.0%	20.5%	21.9%	23.4%	24.9%	18.0
Return on Assets**/Unleveraged IRR			8.1%	8.4%	8.6%	8.9%	9.1%	9.4%	9.7%	10.0%	10.3%	10.6%	9.3
'On developer's equity only.													
*On project cost.													

We backed into the loan amount using Year 2 DCR of 1.4x. We then backed into supportable equity using 10-year avg ROE of 18%. That left us a financing gap of \$6 million on a \$25 million project.

But that was the final calculation to determine the financial feasibility gap.

How did we get to the Net Operating Income??

	Constr. Yr1	Constr. Yr2	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Net Operating Income	\$0	\$0	\$2,030	\$2,091	\$2,154	\$2,218	\$2,285	\$2,353	\$2,424	\$2,497	\$2,572	\$2,649	\$23,272
Interest and Debt Reserve W/D	\$333	\$998 >	Ψ 2 ,050	\$0	\$0	Ψ 2 , 2 10	\$0	\$0	\$0	\$0	\$0	Ψ 2 ,043	Ψ20,212
The root and Book records the	\$333	\$998	\$2,030	\$2,091	\$2,154	\$2,218	\$2,285	\$2,353	\$2,424	\$2,497	\$2,572	\$2,649	
Debt Service Payment	(\$333)	(\$998)	(\$1,483)	(\$1,483)	(\$1,483)	(\$1,401)	(\$1,401)	(\$1,401)	(\$1,401)	(\$1,401)	(\$1,401)	(\$1,401)	
Net Income to Repay Equity	\$0	\$0	\$547	\$607	\$670	\$817	\$883	\$952	\$1,023	\$1,095	\$1,170	\$1,247	\$9,012
Princ. Amount***	\$3,500	\$10,500	\$14,000	\$13,847	\$13,679	\$13,490	\$13,337	\$13,169	\$12,986	\$12,786	\$12,567	\$12,328	
Interest	\$333	\$998	\$1,330	\$1,315	\$1,299	\$1,248	\$1,234	\$1,218	\$1,201	\$1,183	\$1,162	\$1,140	
Less Payment	(\$333)	(\$998)	(\$1,483)	(\$1,483)	(\$1,483)	(\$1,401)	(\$1,401)	(\$1,401)	(\$1,401)	(\$1,401)	(\$1,401)	(\$1,401)	
Loan Balance	\$3,500	\$10,500	\$13,847	\$13,679	\$13,495	\$13,337	\$13,169	\$12,986	\$12,786	\$12,567	\$12,328	\$12,067	
Assumptions						Refi							
Loan Amount (\$000's)	\$14,000					\$13,490							
Amortization Period (Years)	25					25							
Loan Interest Rate	9.50%					9.25%							
Annual Debt Service Payment (\$000's) Equity:	(\$1,483)					(\$1,401)							
Developer's Equity (\$000's)	\$5,000	20%											
Private Debt	\$14,000	56%											
Total Supportable Private Financing	\$19,000	76%											
Gap/Subsidy/Grants	\$6,000	24%											
Project Amount (\$000's)	\$25,000	100%											10 1/ 4
Debt Coverage Ratio			1.37	1.41	1.45	1.58	1.63	1.68	1.73	1.78	1.84	1.89	10-Yr Avg 1.64
Return on Private Equity/Leveraged IRR*			10.9%	12.1%	13.4%	16.3%	17.7%	19.0%	20.5%	21.9%	23.4%	24.9%	18.0%
Return on Assets**/Unleveraged IRR			8.1%	8.4%	8.6%	8.9%	9.1%	9.4%	9.7%	10.0%	10.3%	10.6%	9.3%
*On developer's equity only.													
**On project cost.													
***Assumes 50% draw in Construction Year 1; 75% a Source: Hunden Strategic Partners	average during Constru	ction Year 2											

Hotels are really complicated.

So let's shift to an example that is simple: a multi-tenant office building.



Example Office Projection

		Base																
Projections	A	ssumption	Year 1		Year 2	Year 3		Year 4	,	Year 5	Year 6	Υ	ear 7	Year 8	,	ear 9		Year 10
OFFICE																		
Office Gross Square Footage		50,000	50,000		50,000	50,000		50,000	į	50,000	50,000	5	0,000	50,000	5	0,000		50,000
Rental Rate (Gross)	\$	29.50	\$ 29.50 \$		30.24	\$ 30.99 \$	6	31.77 \$		32.56	\$ 33.38 \$	3	34.21	\$ 35.07 \$;	5.94 \$		36.84
Gross Potential Rent	\$	1,475,000	\$ 1,475,000 \$	1,5	11,875	\$ 1,549,672 \$	5 1	1,588,414 \$	1,62	8,124	\$ 1,668,827 \$	1,710),548	\$ 1,753,311 \$	1,79	',144 \$	1,	842,073
Office Vacancy %		10%	35%		20%	10%		10%		10%	10%		10%	10%		10%		10%
Occupied Office Space		45,000	32,500		40,000	45,000		45,000	4	5,000	45,000	45	5,000	45,000	4	5,000		45,000
Gross Effective Rent	\$	1,327,500	\$ 958,750 \$	1,2	09,500	\$ 1,394,705 \$	5 1	1,429,572 \$	1,46	5,312	\$ 1,501,944 \$	1,539	,493	\$ 1,577,980 \$	1,61	,430 \$	1,	657,866
Expense % (CAM, Taxes, Insurance)		18.0%	18.0%		18.0%	18.0%		18.0%		18.0%	18.0%	1	8.0%	18.0%		8.0%		18.0%
Net Operating Income	\$	1,088,550	\$ 786,175 \$	9	91,790	\$ 1,143,658 \$	5 1	1,172,249 \$	1,20	1,556	\$ 1,231,594 \$	1,262	2,384	\$ 1,293,944 \$	1,32	,292 \$	1,	359,450
NOI Percentage			53.3%		65.6%	73.8%		73.8%		73.8%	73.8%	7	3.8%	73.8%	•	3.8%		73.8%
Source: Hunden Strategic Partners																		

Source: Hunden Strategic Partners

Like any business, profitability = revenue minus expense.

In this example, we show the supportable financing. The "gap" is any cost over the supportable financing of \$217/SF or \$10.85 million.

	Constr. Yr1	Constr. Yr2	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Net Operating Income	\$0	\$0	\$786	\$992	\$1,144	\$1,172	\$1,202	\$1,232	\$1,262	\$1,294	\$1,326	\$1,359	\$11,769
Interest and Debt Reserve W/D	\$162	\$486	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	*,-
	\$162	\$486	\$786	\$992	\$1,144	\$1,172	\$1,202	\$1,232	\$1,262	\$1,294	\$1,326	\$1,359	
Debt Service Payment	(\$162)	(\$486)	(\$759)	(\$759)	(\$759)	(\$710)	(\$710)	(\$710)	(\$710)	(\$710)	(\$710)	(\$710)	
Net Income to Repay Equity	\$0	\$0	\$27	\$233	\$385	\$463	\$492	\$522	\$553	\$584	\$617	\$650	\$4,525
Princ. Amount***	\$2,025	\$6,075	\$8,100	\$7,989	\$7,870	\$7,740	\$7,630	\$7,512	\$7,384	\$7,247	\$7,099	\$6,940	
Interest	\$162	\$486	\$648	\$639	\$630	\$ 600	\$591	\$582	\$572	\$562	\$550	\$538	
Less Payment	(\$162)	(\$486)	(\$759)	(\$759)	(\$759)	(\$710)	(\$710)	(\$710)	(\$710)	(\$710)	(\$710)	(\$710)	
Loan Balance	\$2,025	\$ 6,0 7 5	\$7 ,989	\$7,870	\$7,740	\$7,630	\$7,512	\$7,384	\$7,247	\$7 ,099	\$6,940	\$6,768	
Assumptions						Refi							
Loan Amount (\$000's)	\$8,100					\$7,740							
Amortization Period (Years)	25			/		25							
Loan Interest Rate	8.00%					7.75%							
Annual Debt Service Payment (\$000's)	(\$759)					(\$710)							
Equity:													
Developer's Equity (\$000's)	\$2,750	21%	/										
Private Debt	\$8,100	61%											
Total Supportable Private Financing	\$10,850	81%	\$217 p	oer SF									10-Yr Avg
Debt (Private) Coverage Ratio			1.04	1.31	1.51	1.65	1.69	1.74	1.78	1.82	1.87	1.92	1.63
Return on Private Equity/Leveraged IRR*			1.0%	8.5%	14.0%	16.8%	17.9%	19.0%	20.1%	21.2%	22.4%	23.6%	16.5%
Return on Assets**/Unleveraged IRR			5.9%	7.4%	8.6%	8.8%	9.0%	9.2%	9.5%	9.7%	9.9%	10.2%	8.8%
*On developer's equity only. **On project cost. ***Assumes 50% draw in Construction Year 1; 75%	average during Constru	oction Year 2											





- Appraisals are used by banks to determine what the value of a property is so that they can accurately determine how much to loan on a purchase or developments.
- If the project has not been built, the appraisal is on the expected project's performance. If the project is operating, then it is based on future projections of financial performance.
- There are *three* approaches to valuation:
 - **Cost Approach** Least used or relied upon.
 - Comparable Sales Approach Used often to help give the appraiser an idea of what the market is paying for similar properties, on a per square foot or per unit basis.
 - **Income Approach** The most relied upon (in conjunction with help from the comps)
 - The income approach is what was just described and shown.
 - Value is based on ten years of future cash flow plus a "reversion", or sale, in the 10th year.
 - The present value of all future cash flows is today's value.



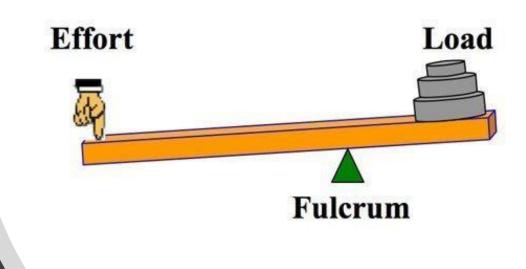
What is a discount rate? The weighted average cost of capital (WACC)

	С	iscounted C	ash Flow	Value An	alysis (00	0s) - 50,00	0-SF Offic	ce				
	Constr											
Calendar Year	Constr. Yr1		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Net Cash Flow	\$0	\$0	\$786	\$992	\$1,144	\$1,172	\$1,202	\$1,232	\$1,262	\$1,294	\$1,326	\$1,359
									Yr 10 Net C Terminal Ca	ap Rate		\$1,359 8.75%
									Yr 10 Resid			\$15,537
										g Costs (2.5		\$388
								l	Net Reversi	on Proceed	S	\$15,148
Cash Flow to Investor	\$0	\$0	\$786	\$992	\$1,144	\$1,172	\$1,202	\$1,232	\$1,262	\$1,294	\$1,326	\$16,508
Present Value	\$0	\$0	\$714	\$818	\$856	\$797	\$741	\$690	\$642	\$597	\$556	\$517
Cash on Cash Return	0.0%	0.0%	6.2%	7.8%	9.0%	9.2%	9.5%	9.7%	9.9%	10.2%	10.4%	130.1%
Discount Rate Square Feet	10.1% 50,000								Yr 5 Net Ca Terminal Ca Yr 5 Residu	ap Rate		\$1,202 8.75% \$13,732
Present Value Summary	\$000s									g Costs (2.5	5%)	\$343
PV Residual	\$5,765									on Proceed	•	\$13,389
PV Income Stream	\$6,927							•				
Present Value	\$12,692											
Present Value Per SF (\$)	\$253.85											
10-Year IRR - Unleveraged (ROA)	12.6%	(\$10,850)	\$786	\$992	\$1,144	\$1,172	\$1,202	\$1,232	\$1,262	\$1,294	\$1,326	\$16,508
5-Year IRR- Unleverage (ROA)	11.3%	(\$10,850)	\$786	\$992	\$1,144	\$1,172	\$1,202	\$13,389				
10-Year IRR - Leveraged (ROE)	20.1%	(\$2,750)	\$27	\$233	\$385	\$463	\$492	\$522	\$553	\$584	\$617	\$8,380
5-Year IRR - Leveraged (ROE)	20.4%	(\$2,750)	\$27	\$233	\$385	\$463	\$492	\$5,877				



Key Terms: Leveraged vs. Unleveraged

- Leverage is the ability to use a little effort to lift a very heavy weight.
- Financial leverage is when you borrow as much as possible, so that you don't have to use your own money to pay for the whole project.
- Bank loans are the developer's leverage. They can tackle a huge project with just a fraction of the cost in equity.
- Ultimately the leveraged returns are better because the cost of a loan is less than the cost of equity.
- Unleveraged returns, also called cash-on-cash, assume that the whole project was paid for in cash and all returns repay that upfront cash investment. Developers like this method because it focuses on the productivity of the asset and doesn't rely on financial engineering to make it work.
- But in reality, they all borrow to improve their returns.
- Let's go back to the prior slide and see how leveraged vs. unleveraged returns work.





	[)iscounted C	ash Flow	Value An	alysis (00	0s) - 50,00	0-SF Offic	e				
	Constr	uction										
Calendar Year	Constr. Yr1	Constr. Yr2	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Net Cash Flow	\$0	\$0	\$786	\$992	\$1,144	\$1,172	\$1,202	\$1,232	\$1,262	\$1,294	\$1,326	\$1,359
									Yr 10 Net Co Terminal Ca Yr 10 Resid Less Closin	ip Rate ual Value	5%)	\$1,359 8.75% \$15,537 \$388
									Net Reversi			\$15,148
Cash Flow to Investor Present Value Cash on Cash Return	\$0 \$0 0.0%	\$0 \$0 0.0%	\$786 \$714 6.2%	\$992 \$818 7.8%	\$1,144 \$856 9.0%	\$1,172 \$797 9.2%	\$1,202 \$741 9.5%	\$1,232 \$690 9.7%	\$1,262 \$642 9.9%	\$1,294 \$597 10.2%	\$1,326 \$556 10.4%	\$16,508 \$517 130.1%
Discount Rate Square Feet	10.1% 50,000								Yr 5 Net Ca Terminal Ca Yr 5 Residu	p Rate		\$1,202 8.75% \$13,732
Present Value Summary	\$000s								Less Closin	g Costs (2.5	i%)	\$343
PV Residual	\$5,765								Net Reversi	on Proceed	s	\$13,389
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5-Year IRR- Unleverage (ROA)	11.3%	(\$10,850)	\$7 86	\$992	\$1,144	\$1,172	\$1,202	\$13,389				
10-Year IRR - Leveraged (ROE)	20.1%	(\$2,750)	\$27	\$233	\$385	\$463	\$492	\$522	\$553	\$584	\$617	\$8,380
5-Year IRR - Leveraged (ROE)	20.4%	(\$2,750)	\$27	\$233	\$385	\$463	\$492	\$5,877				



^{*}Unleveraged is also called Return on Assets (ROA) and Cash-on-Cash Return



For most of our clients working on tough to finance projects, the real question is: What will the benefit be to the community?

How to measure the return on investment for the community?

- **New Spending**: Over the life of the project, or often, the life of the bond issued (20-30 years), what will be the net new spending that the Project brings to the community? How is this determined?
- New Earnings: What will be the new earnings that end up in the pockets of new employees in the community?
- New Jobs: How many new jobs will be created from the new earnings? What kinds of jobs will these be? What will they pay?
- New Taxes: If the public is putting money in, what is it getting out?
- **Solves a problem:** The project may or may not have a huge fiscal or jobs impact, but it may solve a problem (or many).
- Improves Quality of Life/Reputation: This may be a problem that needs to be solved, or it may just be the thing that shows your community is moving, growing, creating opportunities and not as bad as your critics say.



How is Impact Calculated?

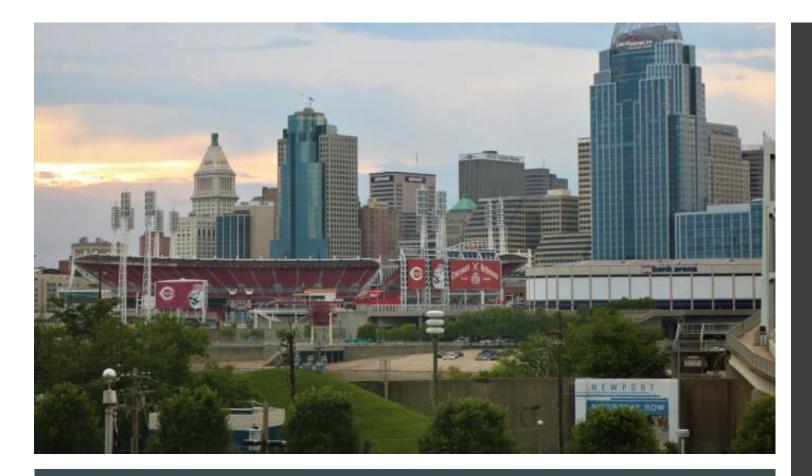
- The concept of counting what is "net new" is complicated, with hundreds of inputs and hundreds of outputs.
- When developers (and sometimes others) count impact, they often count all of the onsite and offsite impact. However, that is not accurate. That is the GROSS impact. Sometime they will count that and the spinoff impacts, which is incorrect.
- The reality is that new projects induce and recapture spending/jobs/taxes, but also cannibalize some of the existing spending. Also depending on WHERE the project is, impact will change.



How is Impact Calculated?

- Projects also induce spending/spinoff to other businesses
 (think of a convention center or hotel that spills business to
 other hotels/restaurants).
- We are concerned with the **net new** impact. Only the gross less the cannibalized impact.
- Therefore, the measurement of impact is conceptual, as it
 does not focus on the onsite spending only, but attempts to
 consider both the spillover positive benefits as well as the
 negative cannibalization impacts.
- In addition, especially when residential is included, there are often public costs to new projects in terms of impacts on school districts.





Jurisdiction

It is harder to influence a larger area, like a state, versus a city. It is easy to induce new spending to a smaller area than a larger one.

Cannibalization is also more likely in a larger area than a smaller one.





Location

The location of a project is key, especially related to the adjacent uses. If a project is located by itself surrounded by parking lots or cornfields, it will not generate as much synergistic spending compared to if it is located amongst restaurant, retail, offices, housing, etc.





Location Near Border

New projects on the border of another jurisdiction can pull spending from the jurisdiction, but can also lose impact to the adjacent jurisdiction, depending if the population and strength of the adjacent jurisdiction.





Type of Project

The type of project has a massive influence on community impact.

Racetracks with one or two major races often generate more impact on the community than they can recapture for themselves.

A new company operating 365 days per year will generate impact continuously.





Uniqueness

The more unique a project, the more likely it is to induce and recapture spending.

The more common, the less new impact and the more cannibalization will occur.





Origin of Visitors

Where the spending comes from is most important. If the project induces new spending from outside the jurisdiction, then it can be counted.

Also, if it recaptures spending that had been occurring outside the area, it can be counted.



Conceptualizing Impact

Project

Community impact

Project

Community impact

Project Community impact



Summary of 30-Year Impacts - TIF Zone Only

Net New Spending	(millions)
Direct	\$6,770
Indirect	\$2,385
Induced	\$2,691
Total	\$11,846
Net New Earnings	(millions)
From New Employees in New Offices	\$10,921
From Direct Project Spending	\$2,232
From Indirect Spending	\$748
From Induced Spending	\$790
Total	\$14,691
Net New FTE Jobs	Actual
From New Employees in New Offices	4,722
From Direct	1,965
From Indirect	696
From Induced	784
Total	8,167
Net New Local Taxes Collected	(millions)
Avoidance of Operating Loss at Coliseum	\$3.0
State Sales Tax on Specific Blocks (2.025%)	\$30.4
Sales Tax on New Taxable Spending (1.0%)	\$55.6
Sales Tax on Construction Materials (1.0%)	\$0.6
Meals/Restaurant Tax (6.0%)	\$192.8
Meals/Restaurant Tax (1.5%)	\$48.2
BPOL Tax (varies)	\$13.5
Admissions Tax (7.0%)	\$136.2
Lodging Tax (8.0% to GRCCA)	\$100.0
Total	\$580.3
ncremental Real Estate Taxes Collected**	(millions)
Real Estate Tax	\$1,124.3

(millions)

\$1,704.6



Onsite Gross Impact vs. **New Community Impact**

Summary of 30-Year Impacts - Richmond Net Impact Model

Net New Spending	(millions)
Direct	\$6,474
Indirect	\$2,263
Induced	\$2,584
Total	\$11,322
Net New Earnings	(millions)
From New Employees in New Offices	\$10,921
From Direct Project Spending	\$2,141
From Indirect Spending	\$716
From Induced Spending	\$758
Total	\$14,536
Net New FTE Jobs	Actual
From New Employees in New Offices	4,722
From Direct	1,850
From Indirect	651
From Induced	743
Total	7,966
Net New Local Taxes Collected*	(millions)
Avoidance of Operating Loss at Coliseum	\$3.0
State Sales Tax on Specific Blocks (2.025%)	\$30.4
Sales Tax on New Taxable Spending (1.0%)	\$53.0
Sales Tax on Construction Materials (1.0%)	\$0.6
Meals/Restaurant Tax (6.0%)	\$151.7
Meals/Restaurant Tax (1.5%)	\$37.9
BPOL Tax (varies)	\$12.9
Admissions Tax (7.0%)	\$136.2
Lodging Tax (8.0% to GRCCA)	\$121.9
Total	\$547.6
* New to City of Richmond.	
Incremental Real Estate Taxes Collected**	(millions)
Real Estate Tax	\$1,124.3
** impact Zone Only	, - =
	(millions)
Total Local New Taxes Collected	\$1,671.9

nden Strategic Partners

Total Local New Taxes Collected

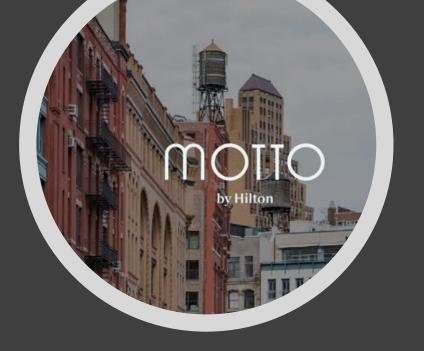
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Source: Hunden Strategic Partners

So How Do you Know How Much to Provide a Project?

What is needed to cover your bonds?

What is needed to ensure you win the project?



Private Sector ROI
Public Sector ROI
Other Factors

In the perfect situation, a project would only recapture (or be provided) a portion of what it generated (net new) to the community over a specific period of time.

However, some projects are so important to the community that you are willing to provide additional incentives beyond what is generated onsite or in the community.

Go Get Those Projects – But Study Hard!

Hunden Partners Advises on:

Physical Programming

Market Feasibility

Financial Feasibility

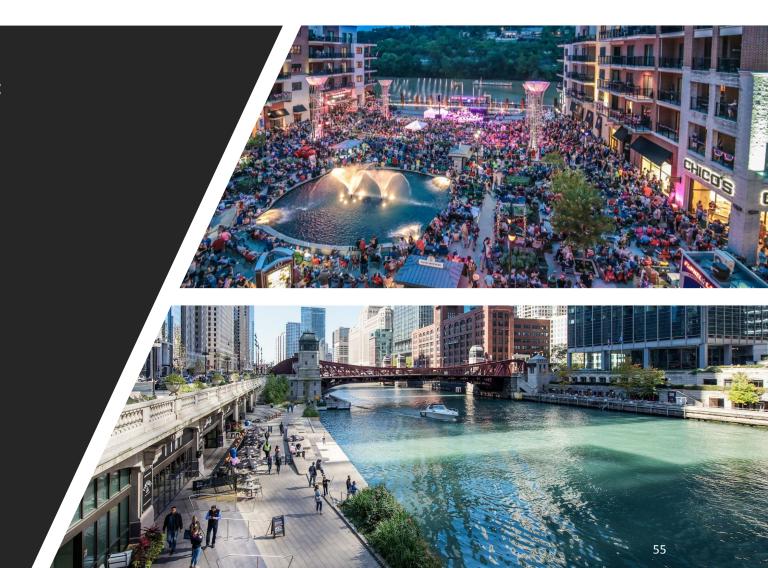
Funding Options/Public Incentives

Economic & Fiscal Impact Analysis

RFQ/P Processes

Partnership Options

Business Plans







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Thank you

