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The Puerto Rico Chamber of Commerce
presents

2012 SUMMIT
The Role of CITIES in a Global Economy

PPPs AS A FINANCING TOOL

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Let's start from the proposition that the private sector is more efficient in:

- Design
- Construction
- Operations
- Maintenance

What about financing?

- Need to analyze the present value

PRESENT VALUE

Year 0	Year 1	Year 2	Year 3	…	Year n
CF_0	CF_1	CF_2	CF_3	…	CF_n

$$\text{Value} = \sum_{t=1}^{n} \frac{CF_0 (1+g)}{(1+r)^t} = \frac{CF_0 (1+g)}{r-g}\left[1 - \frac{(1+g)^n}{(1+r)^n}\right]$$

where,

CF_0 = Cash flow in year 0

g = Annual constant growth rate in cash flow

r = Required rate of return (or cost of financing)

$r > g$

EXAMPLE

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Suppose there is a project that, had it been in place, could have generated annual cash flow of $100MM in the most recent year. What is the value of the stream of cash flows that could be generated by that project for the next 40 years?

Growth rate	Cost of financing					
	6.0%	7.5%	9.0%	12.0%	15.0%	18.0%
0.0%	$1,505	$1,259	$1,076	$824	$664	$555
3.0%	$2,344	$1,875	$1,538	$1,104	$848	$684
4.0%	$2,773	$2,181	$1,762	$1,233	$929	$738
5.0%	$3,313	$2,561	$2,037	$1,387	$1,022	$800
6.0%		$3,038	$2,376	$1,571	$1,133	$871
7.0%		$3,641	$2,799	$1,796	$1,263	$953
8.0%			$3,330	$2,070	$1,418	$1,049
9.0%				$2,407	$1,604	$1,160
12.0%					$2,436	$1,635

Cost of financing, growth, and value:

- Higher growth rate ➔ higher present value
- Higher cost of financing ➔ lower present value

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Financing through the private sector is more expensive than government financing.

- Could the private sector mitigate that higher cost of financing by increasing cash flows at a higher rate?
- May depend on the type of project:
  - Toll road?
  - Airport?
  - Technology?

What if the government does not have the necessary funds?

- That is a fallacy.
- Either way, whether financed through the private or the public sector, the funds to repay the financing will be generated by the project, and not by the private or government entity.

CONCLUSION

PPPs are not necessarily good as a financing tool:

- PPP financing is more expensive than government financing.
- In U.S. jurisdictions, that difference is greater because of tax exemption.

Why then do so many people around the world recommend PPPs precisely as financing tools?

- Behavioral economics: “Herd behavior”?

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THANK YOU!