

### **Texas Transportation Forum**

You Bet Your Assets: Leveraging Existing Infrastructure

## CURRENT OPPORTUNITIES IN THE US PPP MARKETPLACE



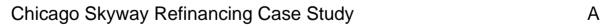
Gregory B. Carey Managing Director

June 9, 2006



### **Table of Contents**

	Tab
Overview of US P3 Market	Ι
Concession Value Generation	II
Market Drivers: How do I Ensure a Successful Concession?	III
Competitive Landscape	IV
What Happens Down the Line?	V
Appendix	





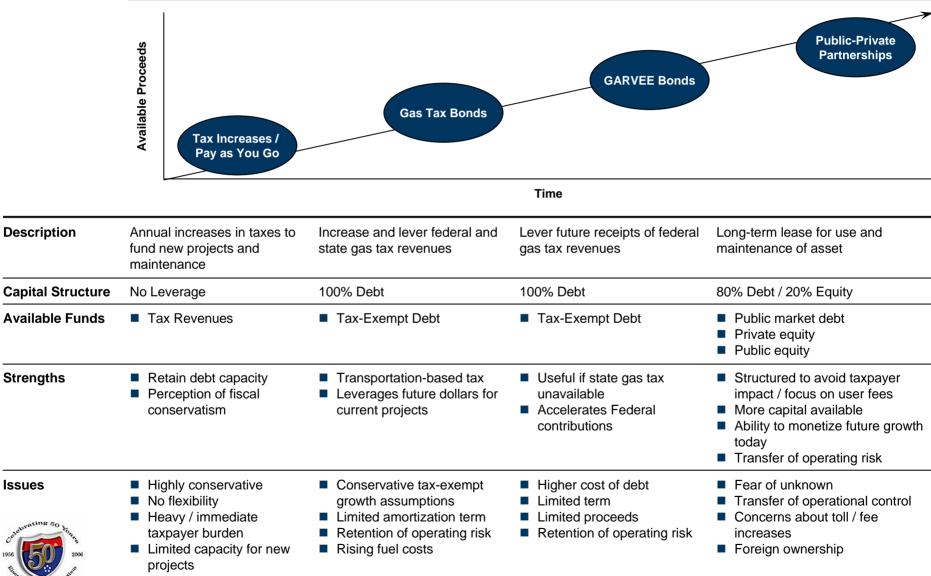


### I. Overview of US P3 Market



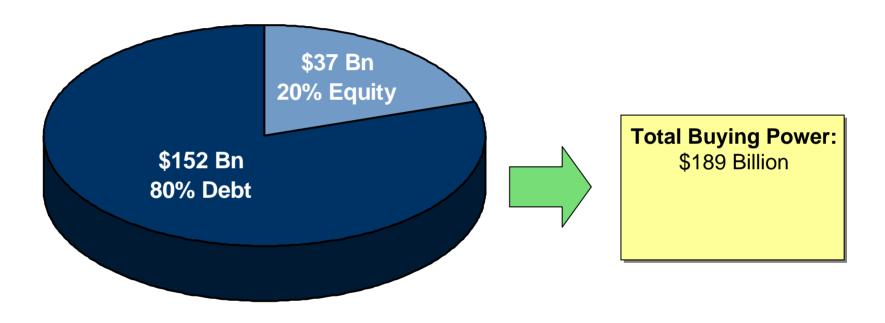


# Public-Private Partnerships represent an evolution in the size and scope of the US Toll Road financing market.





Public-Private Partnerships offer an alternative source of funds via the equity capital markets.







### Public-Private Partnerships can span a variety of asset classes.

### Transportation

- Airports
- Toll Roads
- Bridges/Tunnels
- Parking Facilities/Meter Systems
- Car Rental Facilities
- Ports
- Rail

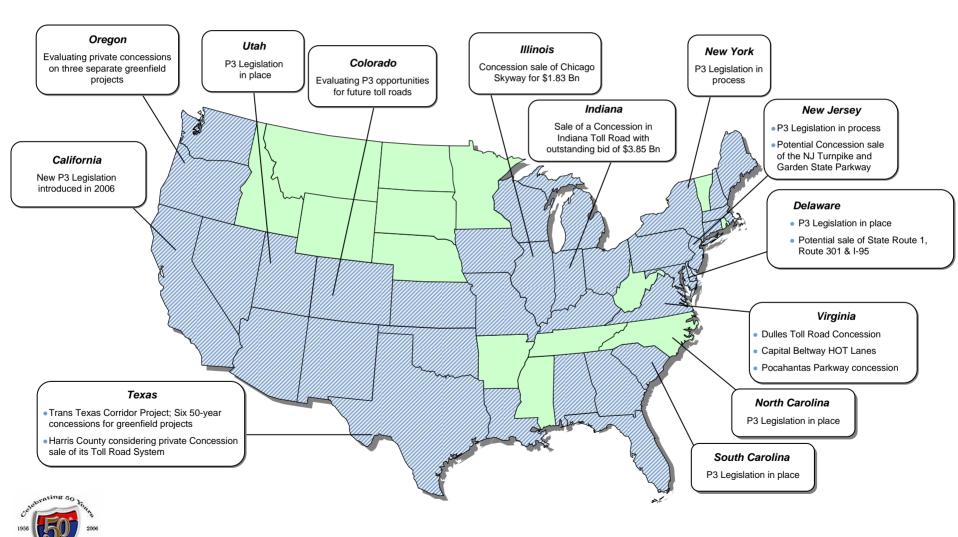
#### **Other Revenue Producing Assets**

- Water/Sewer Systems
- Power
- Hospitals and Healthcare Facilities
- Lottery Systems
- Student Loan Agencies
- Government-Controlled Liquor Stores
- Anything else that produces revenue!





### An increasing number of State and Local Governments are utilizing Public-Private Partnerships for their financing needs.







The emergence of Infrastructure as an "Asset Class" has resulted in capital flows towards Public-Private Partnerships.

- Given the volatility of stock markets over the last 10 years, pension funds and other investment pools are searching for steady returns.
- Infrastructure investments are viewed as a long duration, consistent return portion of an overall portfolio.
- As money has flowed to the Infrastructure space, returns have dropped, sometimes to the single digits for existing assets
  - Investments can be leveraged, resulting in high prices for these assets

	Pro Forma Up-front Cash Flow Price at Sale		Price / Cash Flow
Chicago Skyway	\$1.83 Billion	\$30 million	61x
Indiana Toll Road	\$3.85 Billion	\$98 million	39x





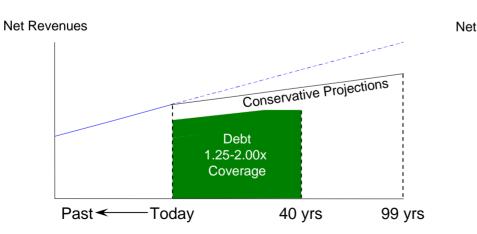
## **II.** Concession Value Generation



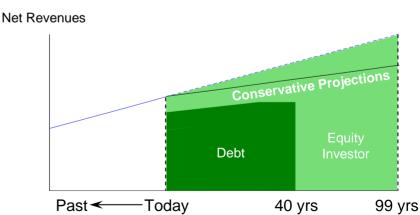


# Concession leases provide an opportunity to capture the "growth wedge" in volume and revenue increases.

- Municipal bond investors rely on historical revenues to determine the leverage levels which constrains total value for the owner
- Equity investors look for future returns based on growth
- Debt + Equity = Greater Proceeds for Owner of Asset



**Municipal Bond** 



**Concession Sale** 





# Despite a similar capital cost, a concession produces a higher value via more aggressive growth estimates.

- Tax benefits, aggressive debt structures, and low interest rates have allowed Private Concessionaires to achieve an after-tax cost of capital similar to the tax-exempt rates.
- However, when the Concessionaire establishes a capital structure, it bonds against a longterm Concession Agreement that unambiguously defines future toll increases.
- Municipalities do not typically predefine multiple future toll increases and have minimal incentive to publish aggressive projections.
  - Indiana had not raised tolls since 1985 and Chicago Skyway had not raised tolls since 1993.
  - Municipal capital markets are cautious of future political risk (i.e., reversal of planned toll increases, failure to enact) necessitating conservative revenue projections and debt service coverage.
  - Tax-exempt arbitrage rules prevent borrowing unless proceeds can be spent within a set period of time.
- On the other hand, Private Concessionaires have incentive to maximize revenues to create consistent or improving margins to validate large purchase prices.
  - Capital markets have greater confidence that for-profit operators will raise tolls at the pre-defined rate to meet investor expectations.



• Unlike municipal entities that borrow to meet a set capital need, Private Concessionaires strive to optimize capital structure and maximize Equity IRR.



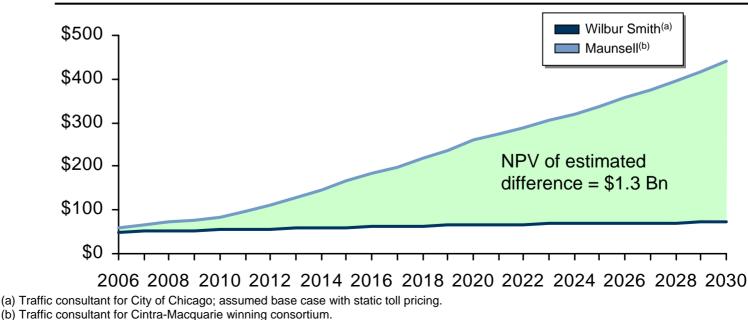
# Using the Chicago Skyway as an example, the difference in the projected cash flows was significant.

The net present value (NPV) difference of the cash flows thru 2030 is approximately \$1.3 Bn (using a 7% discount rate).

	2006-2010	2010-2020	2020-2030	2006-2030
Wilbur Smith <sup>(a)</sup>	2.6%	1.9%	0.9%	1.6%
Maunsell <sup>(b)</sup>	8.9%	11.8%	5.5%	8.7%

Annual Revenue Comparison (\$000s)

#### **Compounded Annual Growth Rate Comparison**







## **III.** Market Drivers: How do I Ensure a Successful Concession?





# Successful projects will be driven by favorable economics AND a compelling story to the public.

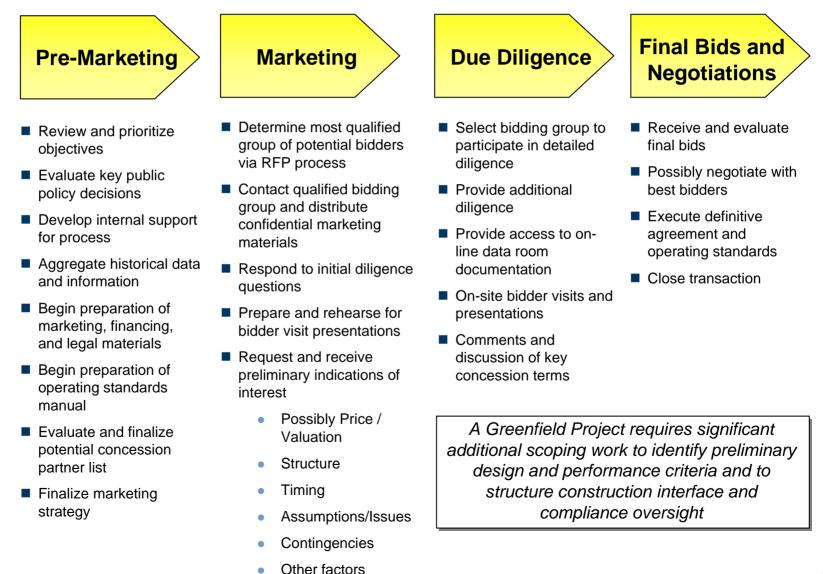
Financial Advantages	Public Policy Advantages
Large up-front payment	Economic growth engine
Ability to repay debt	Invested proceeds create jobs
Improved credit rating	<ul> <li>Municipal employees gain increased upside of public company employment</li> </ul>
Increased funds available for transportation projects	<ul> <li>Higher level of operating performance</li> </ul>
Increased debt capacity	Accelerated achievement of open road tolling and key capital projects
Unlock additional value via:	
<ul> <li>Equity participation</li> </ul>	Reduce stress on future tax increases
<ul> <li>Aggressive view on growth</li> </ul>	Potential to establish trust fund and
<ul> <li>Depreciation benefits</li> </ul>	ongoing annuity stream

• Op Ex and Cap Ex savings





### A Concession Process has four critical stages.







## The valuation will be impacted by key concession terms and growth assumptions.

Valu	ue Drivers	Impact on Value		
Future Revenue Growth	<ul> <li>Allowable Toll Increases</li> <li>Variable Pricing Flexibility</li> <li>Volume Increases</li> <li>Potential for Roadway Widening/ Expansion</li> <li>Electronic Tolling Penetration</li> <li>Economic Growth</li> </ul>	<ul> <li>Specific toll increases provide visibility into future cash flows</li> <li>Variable pricing provides more cash flow, while facilitating traffic flow</li> <li>Greater traffic volume also drives revenue growth</li> <li>Ability to increase road capacity generates more volume and more demand</li> <li>Electronic tolling creates price/demand inelasticity</li> <li>Regional growth accelerates traffic volumes</li> </ul>		
Longer Term of Concession	<ul> <li>Shift Tax Benefits</li> <li>Extend Principal Amortization</li> <li>Provide More Years of Cash Flow to Concessionaire</li> </ul>	<ul> <li>Term of 50 years or more provides buyer with ability to use depreciation to shield income taxes</li> <li>Longer term allows debt to be amortized over greater time, increasing cash flow</li> <li>Additional years of free cash flow are valued and included in up-front payment</li> </ul>		
Expense Reduction	<ul> <li>Toll Road Expertise</li> <li>Create Operating Efficiencies</li> <li>Reduce State-Specific Costs</li> </ul>	<ul> <li>Buyer with focus on toll operations can streamline construction and other operational costs</li> <li>Streamlined operations can reduce operating costs</li> </ul>		
Capital Expenditures	<ul><li>Mandated Capital Expenditures</li><li>Option to Expand Roads</li></ul>	<ul><li>Deduction from value received up front</li><li>Ability to expand road can enhance value significantly</li></ul>		
Cost of Right-of-Way	<ul> <li>Key landowner donations</li> <li>DOT facilitates through use of Eminent Domain</li> </ul>	<ul><li>ROW could be significant cost</li><li>Varying layouts could affect cost</li></ul>		



A carefully designed process drove competition which maximized value for the State







## Goldman Sachs recently acted as sole advisor to the State of Indiana on the \$3.85 billion concession lease of the Indiana Toll Road.

#### **Description of the ITR**

- Critical transportation link between major East Coast cities, the City of Chicago, and the western United States
- 46 year operating history
- Approximately 157 miles in length
- The Toll Road is designated as Interstate 90 (I-90) from the Illinois State Line (where it connects to the Chicago Skyway) to the Ohio State Line (where it connects to the Ohio Turnpike)
- FY05 AADT of 46,000 on Barrier System, and 25,000 on Ticket System
- Unchanged toll rates since 1985 Among lowest \$/mile in US
  - State mandated increase to become effective on 3/1/2006

-				
(in millions)	2004A	2005A	2006E <sup>(b</sup>	) 2007E <sup>(b)</sup>
Commercial Revenue	\$49.6	\$53.3	NA	NA
Passenger Revenue	35.3	34.4	NA	NA
Total Toll Revenue	\$84.9	\$87.7	\$90.3	\$126.0
% Growth	3.5	3.3	2.6	39.5
EBITDA <sup>(c)</sup>	59.7	60.6	63.9	98.0
% Margin	65.0	63.3	63.5	71.8

#### Key Historical and Estimated Financials (a)

#### The Road Network





#### (a) Source: Wilbur Smith/State of Indiana

(b) Pro Forma 2006 and 2007 estimates based on Goldman Sachs and Wilbur Smith internal projections (c) Includes historical concession revenues, which were included as part of the Concession Agreement

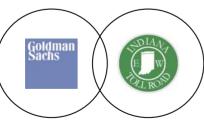


## The winning bid was provided by Statewide Mobility Partners in exchange for the right to operate and maintain the Indiana Toll Road.

#### **Key Concession Terms**

- Statewide Mobility Partners is a 50%-50% partnership between Cintra (Spain) and Macquarie (Australia)
- 75-year concession lease by Indiana Finance Authority in exchange for up-front lease payment of \$3.85 billion
- \$226 million of mandated capital expenditures in first four years
- Commitment to expand to electronic tolling within two years
- Adherence to all existing State standards regarding congestion, maintenance, operations, environmental, etc.
- 250 pg. Operating Agreement governs operational aspects of the transaction
- Clearly defined congestion triggers which mandate expansion when the road reaches capacity

#### Goldman Sachs' Role



- Sole financial advisor to the State
- From the announcement for the RFP in mid-September to the receipt of the sealed bids, the timing of the transaction was approximately 117 days
- Largest North American public-private partnership to date.

#### **Bidding Process Overview**

- The winning bid was determined based on price
- The process was structured so all bidders were pre-qualified operators who met the State's standards
- Three months of extensive bidder due diligence performed on the road by all bidders
- Agreement subject to Legislative approval (expected around March 15<sup>th</sup>)
- \$75 million binding letter of credit submitted with each bid
- Upon signing of the Agreement, winning bidder is required to increase the size of its LOC to 10% of purchase price (\$385 million)
- Interest rate collar negotiated regardless of rate movements between notification and signing, the minimum price is \$3.8 billion

#### **Statewide Mobility Partners Key Statistics**

(\$ US in millions, unless otherwise noted)	Macquarie Infrastructure Group	Cintra S.A.
Market Capitalization <sup>(a)</sup>	\$ 6,369	\$ 6,035
Credit Rating (Moody/S&P)	NA/A	NA
Latest Fiscal Year Financials (b)(c)		
Revenue	3,344	584
Operating Income	595	318
Cash	961	595
Toll Roads Managed	30+	17
Road Miles	400+	1,000+
Number of Countries	9	6
Number of US Concessions	4	2

(a) As of January 19, 2006.

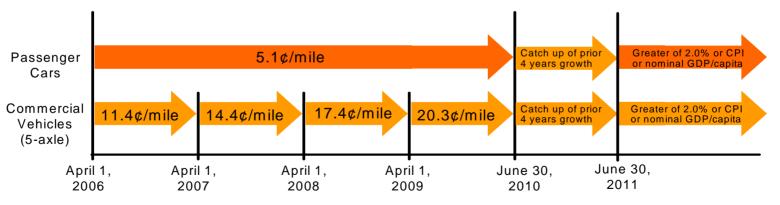
(b) Fiscal Year 2005 data for MIG.

(c) Fiscal Year 2004 data for Cintra.



## Goldman Sachs and the State established key concession terms, including future tolling increases and operating standards.

- Term of Concession: 99 75 years
- Toll Increases:
  - A state-mandated toll increase schedule will be implemented on April 1, 2006.
    - First toll increase since 1985
    - Passenger car tolls to increase to 5.1¢ / mile, and remain unchanged until 2010
    - Commercial vehicle tolls step up as shown below in April 2006, April 2007, April 2008, and April 2009
  - Concessionaire's ability to set tolls begins in 2010 with a step up in 2010 to reflect the prior 4 years CPI or nominal GDP per capita growth
  - Maximum annual toll increase from 2011-2080 (term of concession) will be the greater of 2%, CPI and nominal GDP per capita growth



#### • Operating Standards:

- 250 pages of operating standards that must be maintained
  - Restrictions on congestion management with mandated expansion upon certain Level of Service (LOS) triggers





### **IV. Competitive Landscape**





### Competitive auctions and increased market participation have exerted an upwards pressure on valuations.

- The current US infrastructure market is facing a lack of supply, which has driven demand for projects in this sector.
- The existing bidding community is experienced and well-capitalized.
- Additionally, a number of Infrastructure Funds have recently been announced:
  - GS Infrastructure Fund
  - Carlyle Group
  - KKR (Bid for BAA could signal additional interest)
  - Deutsche Bank
  - ABN Amro
- The need to satisfy investor demand and put capital to work will likely push valuations even higher.
- To this end, we have witnessed significant demand in the auctions run in Chicago and Indiana:

	Skyway	ITR
Number of responses to RFQ	10	10
Number of bidders invited to bid	5	9
Number of submitted bids	3	4



#### Goldman Sachs

# At the same time, more restrictive rating agency parameters could hinder the quantum of bond capacity available.

#### <u>STA</u>NDARD <u>&PO</u>OR'S

- Standard & Poor's recently released an article entitled "Assessing the Credit Quality of Highly Leveraged Deep-Future Toll-Road Concessions" which highlighted certain investment grade requirements
  - This article is the first to clearly outline the specific views on long-term traffic growth and the amount of leverage that can be supported by the deep-future cash flows

#### Key Takeaways:

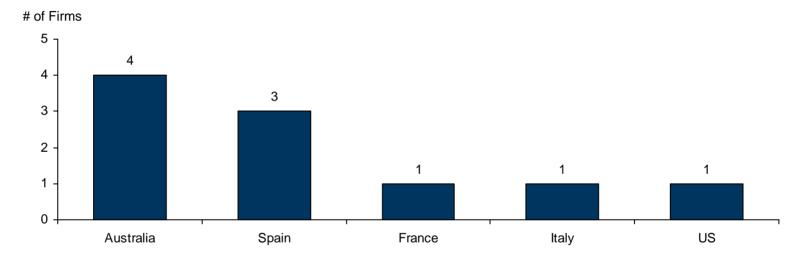
- Skeptical of long-term traffic growth greater than one percent in the mid to far term
  - Generally dismiss traffic models' predictive capabilities as unreliable and believe that the macro and demographic events that can affect traffic flow are too sensitive to predict.
- Generally uncomfortable with debt gearing that is greater than a debt to EBITDA multiple of 30x at transaction inception.
- Expectation that debt plan will be put through strenuous sensitivities, such as fully amortizing structures and refinancing interest rate scenarios.
- Wraps and commitments from monoline insurers are seen as giving additional comfort to the credit but are not a substitute for rigorous credit analysis.





# New entrants in the ITR process indicate an increasing level of competition.

The major players in the Indiana Toll Road auction were comprised of some of the largest and most experienced infrastructure investors.



- The presence of a variety of international firms provide evidence of the increasing importance of the US Infrastructure market.
- In addition to the diversity of international firms involved, there was also involvement by North American firms that were new to the US infrastructure market.



The final group of bidders manages over 6,500 miles of toll roads in aggregate.



## V. What Happens Down the Line?





### **Key P3 Considerations and Questions**

#### Question

- Don't I lose control?
- What if the private operator doesn't perform?

- Why is there demand for these assets now?
- Isn't it a higher cost of capital?
- Is there any North American investor interest?

#### Answer

- The Franchise/Concession Agreement provides governmental control over tolls/pricing, operating standards and other key parameters.
- After some opportunities to cure any problems, the government entity can take back the asset and keep the up-front payment (if any). Also, lenders to a PPP deal will be incentivised to step-in and remedy a nonperforming entity.
- → Huge pools of pension fund and other investor monies are being allocated to the infrastructure space.
- → Low equity return hurdles, interest expense tax shields and depreciation benefits, create a cost of capital which is competitive with municipal bonds.
- Yes, U.S. Financial Institutions are developing mechanisms to help U.S. pension funds invest in infrastructure, and several Canadian Pension Funds are active in the market





### **Common Misconceptions Regarding Public-Private Partnerships**

- Private investors will raise rates in order to achieve windfall profits.
  - Under a concession structure, a rate schedule is determined by the government sponsor, not the private investor.
  - The concession structure can result in a lower project cost of capital, which in turn may produce even *lower* proposed or existing tolls.
- The Government is guaranteeing above market return on equity to the Developers.
  - Return on equity is *not* guaranteed as the Developer *is* assuming numerous risks.
  - Competitive process ensures fair market pricing.
  - In a typical concession, target return on equity ranges from 8-15%.
  - In a greenfield project, the Developer assumes construction risk as well.
  - Even in the municipal bond structure, design contracts, construction contracts and bond sales provide profit to the private sector.
- Foreign investors will take money out of the local economy.
  - Project will benefit the local economy through job creation and opportunities for local businesses.
  - The concession structure allows for the government sponsor to invest proceeds into the local economy.



- Government would be limited in its ability to build other needed projects.
  - Contract would always protect Government's ability to build needed infrastructure, including any projects in the long-term plans.



Ultimately, Governments must weigh the comparative strengths and issues of tax-exempt financing and a Public-Private Partnership.

#### **Tax-Exempt Financing**

- Strengths
  - Benefit of tax-exempt interest costs
  - Established Government credit
  - Existing relationship with insurers
  - Retain all operational control of asset

#### Issues

- Market access issues
- Willingness of insurers to commit to further exposure
- Full retention of all ridership and operating risk
- No "cushion" for slower than expected revenue growth

#### Public-Private Partnership

- Strengths
  - Strength of private equity credit
  - Addition of equity cushion and "skin in the game"
  - Market demand for infrastructure projects (i.e., first-mover advantage)
  - Transfer of ridership and operating risk
  - Ability to continue governance/oversight
- Issues
  - Shift from day-to-day operational oversight to "Chairman of the Board" role
  - Equity partners must believe in future growth
  - Public policy implications / transfer of revenue stream





## A. Chicago Skyway Refinancing Case Study





### Skyway refinancing gave "proof-of-concept" to US debt markets.

The \$US1.83B acquisition of the Chicago Skyway by Cintra Concesiones de Infraestructuras de Transporte, S.A. ("Cintra") and Macquarie Infrastructure Group ("Macquarie") is the first privatisation of an existing toll road in the United States. This watershed transaction was refinanced by Cintra/Macquarie through an innovative \$US1.4B securitization completed by Skyway Concession Company LLC ("SCC").

#### First U.S. toll road securitisation

- First capital markets financing for a European PPP-style road concession in the US
- Expected to lead to many similar financings, as municipalities turn to the private sector for efficient monetization of long-lived capital assets
- Financing designed so that the project pays the lowest interest cost, at the most stable rate, over the longest tenor
- Securitization substantially increased the sponsors' ROI on the Skyway acquisition
- Innovative interest rate derivatives from Citigroup, N.A. and Goldman Sachs Capital Markets L.P. created a synthetic floating-rate zero coupon debt instrument allowing:
  - SCC to issue floating-rate securities, enhancing the marketability of its senior debt and enabling the sponsors to achieve a lower rate than may have otherwise been possible
  - SCC to significantly defer fixed-rate payments to the swap counterparties in the early years to the later years after scheduled toll increases take effect
- Global marketing effort placed securities with a broad cross-section of institutional investors
  - Citigroup and Goldman Sachs were able to sell across investor types, including traditional buyers of asset-backed, corporate, municipal and project finance debt
- Innovative wrapped structure permitted the 99-year concession agreement to be financed through a 21-year financing
  - Financial Security Assurance (FSA) wrapped not only the senior secured debt, but provided a forward commitment to guarantee certain refinancing debt





# The use of a monoline wrap and accreting swaps proved to be innovative and effective.

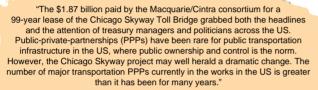
- The City of Chicago awarded a 99-year concession for the Chicago Skyway, a toll bridge system, to the Skyway Concession Company LLC (the "SCC") in consideration for a one-time rent payment of \$1.83 billion
  - Paid in full on January 24, 2005
  - SCC is indirectly owned 55% by Cintra and 45% by Macquarie
- SCC issued \$1.4 billion of bonds to refinance the existing bank loan, fund capital expenditures and reserves, pay issuance costs, make payments in relation to swap transactions as required, and repay a portion of the subordinated member loan
  - FSA provided an unconditional and irrevocable guarantee of regularly scheduled payments of principal and interest
- SCC entered into interest rate swaps with Citibank and Goldman Sachs
  - The interest rate on all the bonds was swapped to a fixed rate
  - The Series B swap requires the swap counterparty to pay current floating-rate interest, while the majority of the Issuer's fixed rate payments accrete and are deferred until years 2017 through 2019
- Proceeds were used to:
  - Repay existing bank loan
  - Fund various reserve accounts
  - Fund required capital improvements
  - Repay portion of subordinated member loan
  - Pay financing/closing expenses
  - Make payments in connection with swap transactions at close

Series	Size (\$Mn)	Ratings: M/S	Coupon	Average Life	Expected Maturity
А	\$439	Aaa/AAA	3mo LIBOR + 0.28%	11.9 years	11.9 years
В	\$961	Aaa/AAA	3mo LIBOR + 0.38%	17.1 years	20.9 years





### Market support for the transaction was strong.



"The \$1.82 billion Chicago Skyway privatization has been named the 'NORTH AMERICAN TRANSPORT DEAL OF THE YEAR' and 'OVERALL NORTH AMERICAN DEAL OF THE YEAR' for 2004"

(Project Finance Magazine)

"Though toll road-backed deals are somewhat rare in the U.S. market, the deal priced at aggressive levels resembling those of even shorter-dated home equity deals..."

"...this is a very good asset with a long tenor and no prepayment sensitivity,' said one source. This deal is going to behave as expected.' The source noted the deal was attractive to a wide mix of investors looking for longer-dated triple-A assets."

(Asset Securitization Report, August 15, 2005)

"Macquarie Infrastructure Group chief executive officer Stephen Allen said the toll road owner was pleased with the level of interest in its inaugural bond issue in the US. He said the financing structure better matched Skyway's capital structure to its operating cash flows, providing an improvement in the shortterm yield prospects from Skyway and an immediate return of \$US168 million (\$A218.61 million) of cash to MIG."

(Australian Associated Press, August 17, 2005)

"This financing demonstrates the depth of the pool of long-term capital available to support privately owned or operated transportation infrastructure in the US. It is a significant milestone for the development of this market."

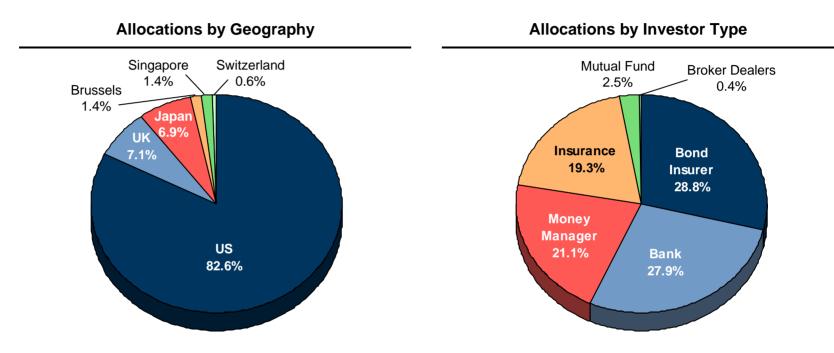
"The Chicago Skyway is not only one of the first privatizations of an existing toll road or toll bridge in the United States, but, with this refinancing, it's among the first toll road projects to employ a combination of insured bonds and derivatives instruments."

(White & Case)





# Distribution proved that a wide range of investors have an appetite for Toll Road projects.



- Investors focused on several key strengths of the transaction including:
  - Term of concession: 99 year life
  - Historical performance: 46 year operating history
  - Sponsorship: Skyway sponsors have interests in 30 roads worldwide
  - Revenue growth: toll regime provides for meaningful rate increases over concession life
  - Credit support: traditional project finance features (reserve account, cash traps) plus surety bond





# The interest rate hedge and refinancing components of the transaction were particularly innovative.

- The transaction utilized an innovative accreting swap
  - Series A and B Bond floating rate payments will be swapped to fixed payments through maturity
  - Series B Bonds will be swapped from a current payment structure to a synthetic zero coupon structure
  - Counterparties make payments to SCC equal to the interest due on the Series B bonds
  - SCC makes fixed payments to swap counterparties, the substantial majority of such payments to be paid between 2017 and 2019
- The transaction is expected to be refinanced rather than paid down
  - The majority of the maturing bond principal and payments due to the Series B swap counterparties will be refinanced between 2017 and 2026 with new indebtedness (the "Refinancing Bonds")
  - FSA is providing a forward commitment today to issue a financial guarantee insurance policy for the Refinancing Bonds
  - FSA has pre-agreed to the issuance of auction rate securities as the Refinancing Bonds
  - Alternatively, insured or uninsured debt may be issued





### **Disclaimer**

This material is not a product of the Fixed Income Research Department. It is not a research report and it should not be construed as such. All materials, including proposed terms and conditions, are indicative and for discussion purposes only. Finalized terms and conditions are subject to further discussion and negotiation and will be evidenced by a formal agreement. Opinions expressed are our present opinions only and are subject to change without further notice. The information contained herein is confidential. By accepting this information, the recipient agrees that it will, and it will cause its directors, partners, officers, employees and representatives to use the information only to evaluate its potential interest in the strategies described herein and for no other purpose and will not divulge any such information to any other party. Any reproduction of this information, in whole or in part, is prohibited. Except in so far as required to do so to comply with applicable law or regulation, express or implied, no warranty whatsoever, including but not limited to, warranties as to quality, accuracy, performance, timeliness, continued availability or completeness of any information contained herein is made. Opinions expressed herein are current opinions only as of the date indicated. Any historical price(s) or value(s) are also only as of the date indicated. We are under no obligation to update opinions or other information. The information contained herein has been prepared solely for informational purposes and is not an offer to buy or sell or a solicitation of an offer to buy or sell any security or instrument or to participate in any trading strategy. The Goldman Sachs Group, Inc. does not provide accounting, tax or legal advice; however, you should be aware that any proposed indicative transaction could have accounting, tax, legal or other implications that should be discussed with your advisors and or counsel. The materials should not be relied upon for the maintenance of your books and records or for any tax, accounting, legal or other purposes. In addition, we mutually agree that, subject to applicable law, you may disclose any and all aspects of any potential transaction or structure described herein that are necessary to support any U.S. federal income tax benefits, without the Goldman Sachs Group, Inc. imposing any limitation of any kind. The Goldman Sachs Group, Inc. and affiliates, officers, directors, and employees, including persons involved in the preparation or issuance of this material, may from time to time have "long" or "short" positions in, and buy or sell, the securities, derivatives (including options) or other financial products thereof, of entities mentioned herein. In addition, the Goldman Sachs Group, Inc. and/or affiliates may have served as manager or comanager of a public offering of securities by any such entity. Further information regarding this material may be obtained upon request.

The Goldman Sachs Group, Inc. shall have no liability, contingent or otherwise, to the user or to third parties, or any responsibility whatsoever, for the correctness, quality, accuracy, timeliness, pricing, reliability, performance or completeness of the data or formulae provided herein or for any other aspect of the performance of this materials. In no event will the Goldman Sachs Group, Inc. be liable for any special, indirect, incidental or consequential damages which may be incurred or experienced on account of the user using the data provided herein or this materials, even if the Goldman Sachs Group, Inc. has been advised of the possibility of such damages. The Goldman Sachs Group, Inc. will have no responsibility to inform the user of any difficulties experienced by the Goldman Sachs Group, Inc. or third parties with respect to the use of the materials or to take any action in connection therewith.

The fact that the Goldman Sachs Group, Inc. has made the materials or any other materials available to you constitutes neither a recommendation that you enter into or maintain a particular transaction or position nor a representation that any transaction is suitable or appropriate for you. Transactions involving derivative or other products may involve significant risk and you should not enter into any transaction unless you fully understand all such risks and have independently determined that such transaction is appropriate for you. The Goldman Sachs Group, Inc. is acting in the capacity of an arm's-length contractual counterparty to the user in connection with any transaction the Goldman Sachs Group, Inc. may enter into with the user and not as a financial advisor or a fiduciary.

