

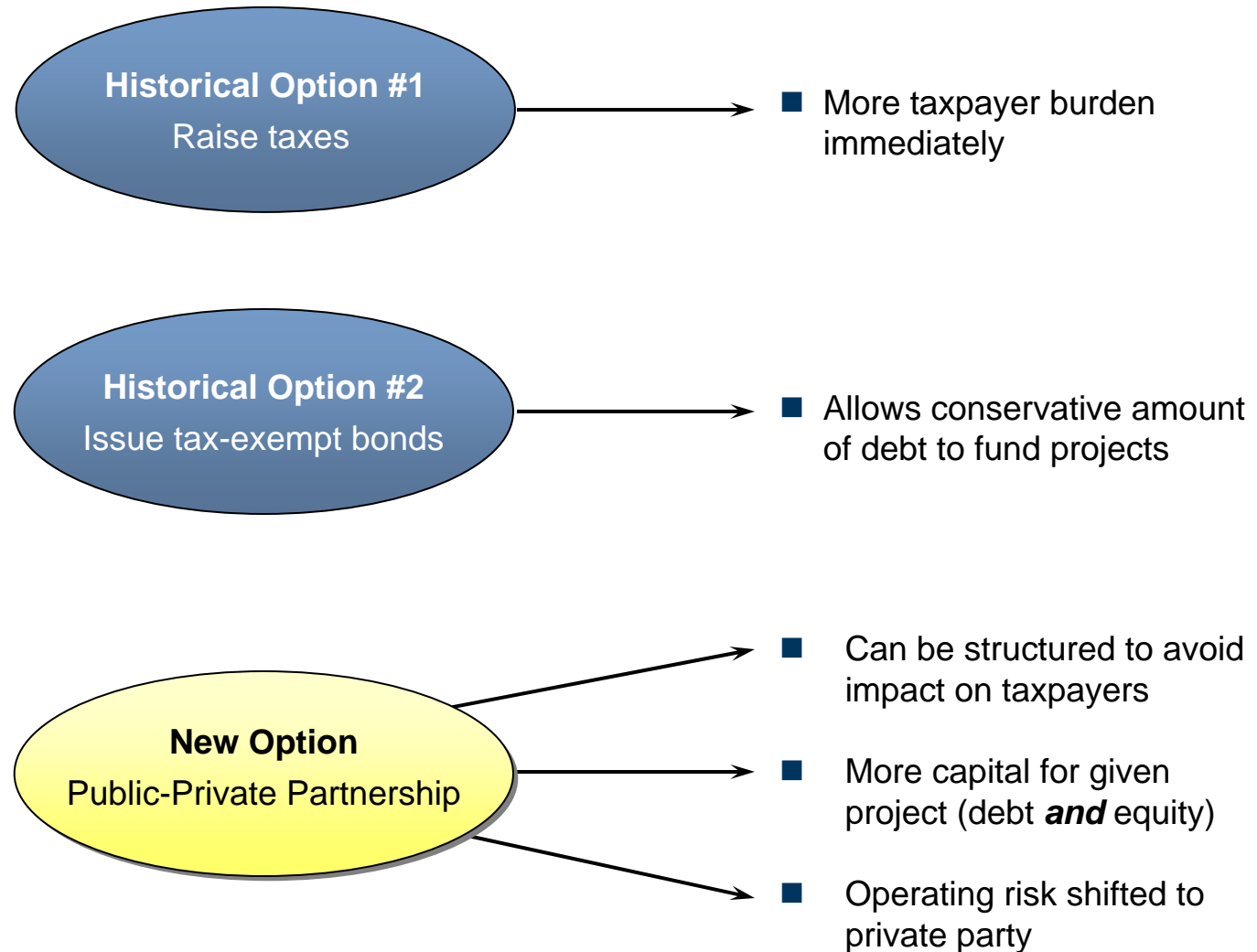
Infrastructure as an Emerging Alternative Asset Class

John Ma and Carlos Pineiro

**Municipal and Infrastructure Finance Group
Goldman, Sachs & Co.**

December 12, 2006

Public-Private Partnerships provide a new source of capital for state and local governments.



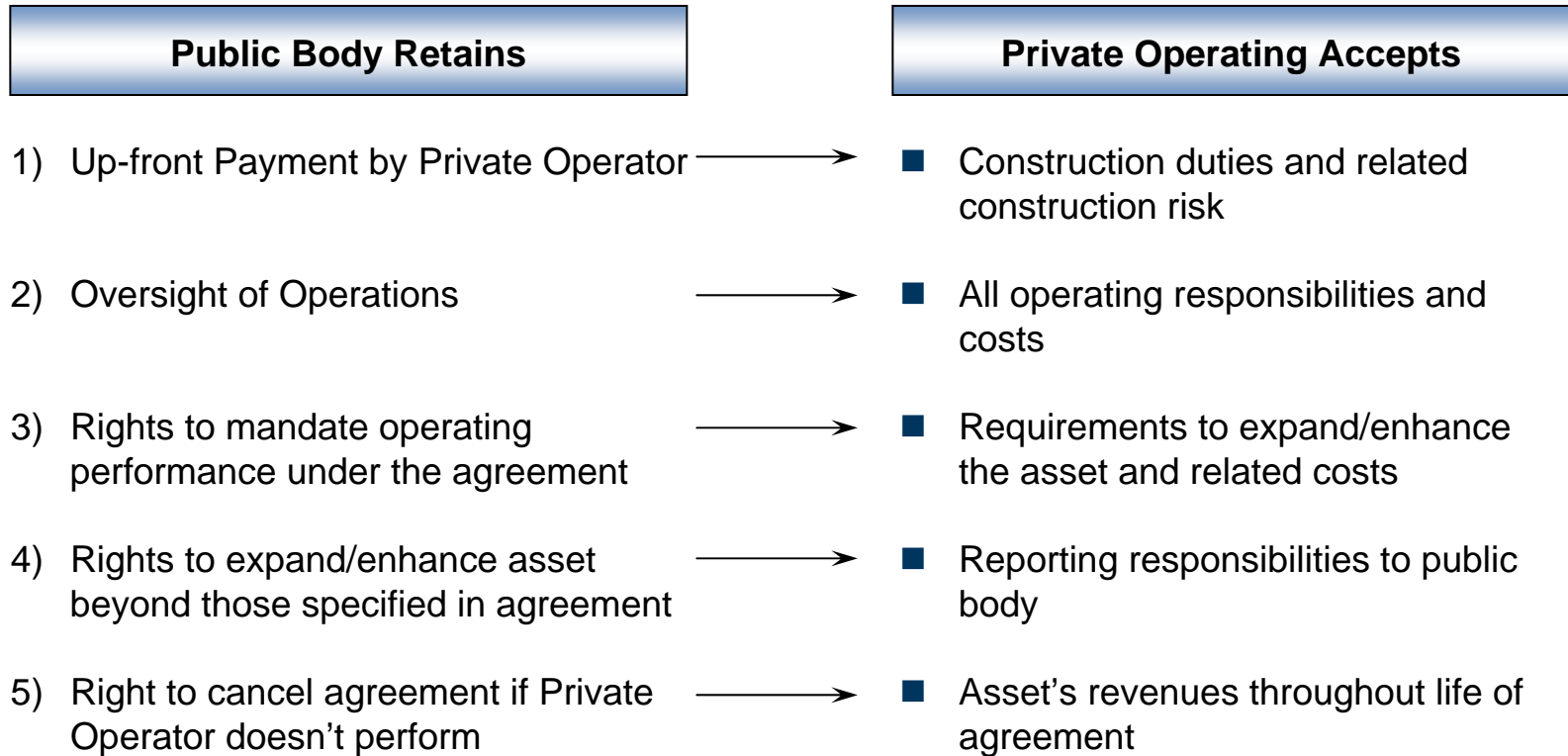
While several strategies exist to implement and finance infrastructure assets, Public-Private Partnerships offer a unique alternative.

Strategy	Description
1) Public Ownership	Traditional toll/revenue system – design, construction, O&M, governance, etc. remain with municipality
2) Public Ownership / Private Contracting	Same as above except certain activities may be contracted for – i.e., design / construction, etc.
3) Concession Agreement	Public owns facilities and maintains governance, enters into lease agreement with a private entity that is responsible for operations, maintenance, construction
4) Private Ownership	All activities, including the setting of rates, are controlled by a private entity

Strategies 2-4 are variations of PPP alternatives

What is a Concession Agreement?

- **Concession Agreement** – A legal document that evidences a long-term lease of a public asset by a private operator.



Concession Agreement structuring decisions will ultimately determine the price of an infrastructure asset.

Value Driver Examples

Impact on Value

Future Revenue Growth

- Rate/Price Increases
- Variable Pricing
- Volume Increases
- Potential for Asset Expansion
- Increase Use of Electronic Tolling/Billing

- Rate increases provide visibility into future cash flows
- Time of day pricing adjustments can improve volume flow
- Increased volume drives growth without raising rates
- Increased capacity generates more volume
- Increases price/demand inelasticity

Longer Term of Concession

- Shift Tax Benefits
- Extend Principal Amortization
- Provide More Years of Cash Flow to Concessionaire

- Longer term allows greater flexibility for depreciation
- Allows for new debt to be amortized over additional years, which adds value
- More years = increased up-front payment

Expense Reduction

- Worldwide Expertise
- Create Operating Efficiencies

- Streamlined construction and other operational costs
- Streamlined operations can reduce operating costs

Capital Expenditures / Congestion Limits

- Mandated Capital Expenditures
- Options to Expand Asset
- Congestion Limits

- Deduction for value received up front
- Ability to expand asset can enhance value by increasing volume, but costs must be considered
- Overly restrictive limits on volume may trigger unneeded capital expenditures and lower value

There are strengths and issues of both tax-exempt financing and Public-Private Partnerships.

Tax-Exempt Financing

- Strengths
 - Benefit of tax-exempt interest costs
 - Established credit parameters
 - Deep, liquid market
 - Retain all operational control of asset
- Issues
 - Full retention of all revenue and operating risk
 - No “equity” to deliver full value

Public-Private Partnership

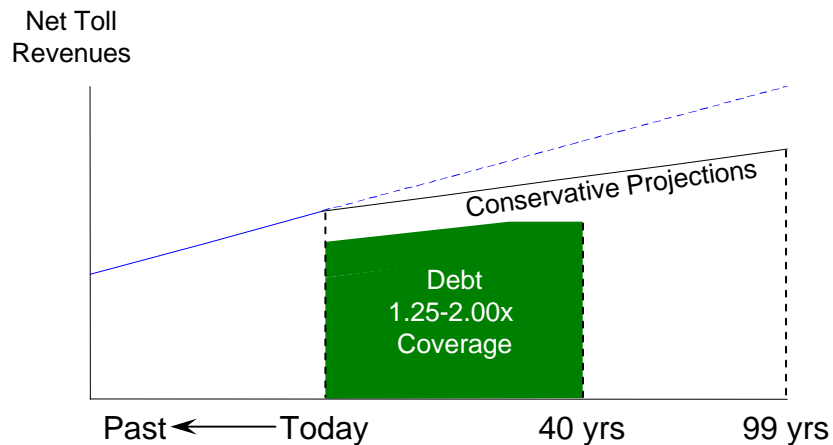
- Strengths
 - Equity helps to provide full value of project
 - Equity cushion facilitates debt financing
 - Substantial market demand for infrastructure projects
 - Transfer of revenue and operating risk
 - Ability to continue governance/oversight
- Issues
 - Shift from day-to-day operational oversight to “Chairman of the Board” role
 - Public policy implications / transfer of revenue stream



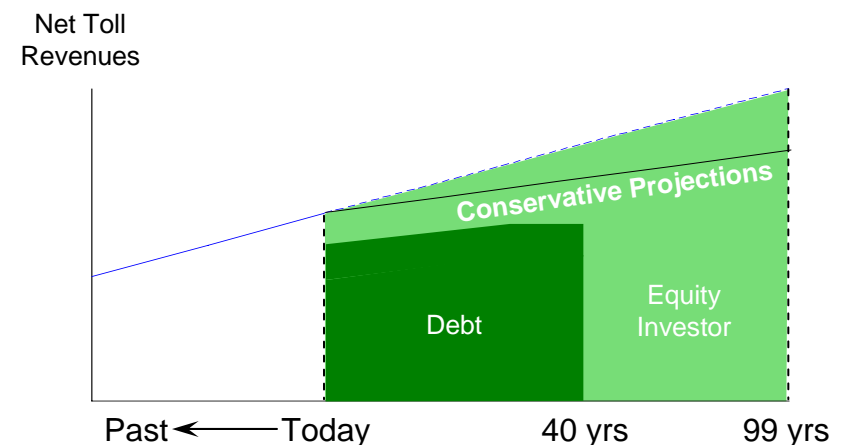
Public-private partnerships provide an opportunity to fully capture the “growth wedge” in future revenue increases.

- 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

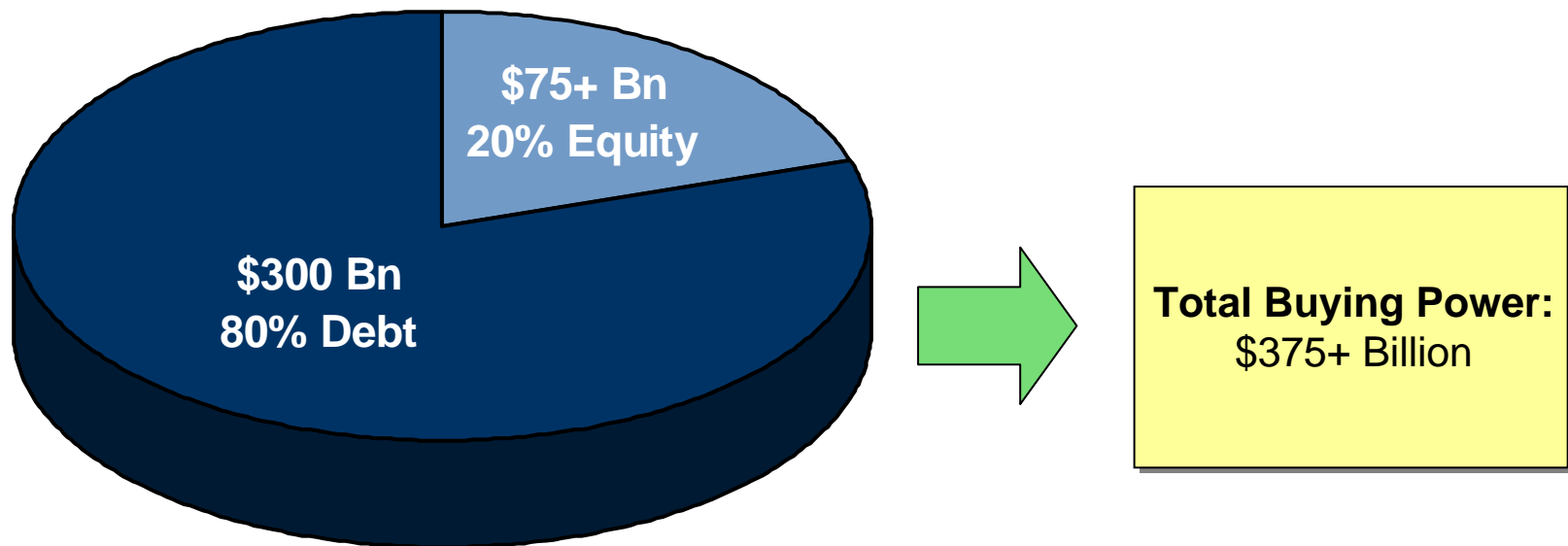
Maximum Municipal Bond Leverage Chicago Skyway = \$800 – 900 Million



Concession Sale Chicago Skyway = \$1.8 Billion



Substantial pools of capital are focused on investing in infrastructure and this growth wedge.



Examples of Infrastructure Investors/Operators

- Babcock & Brown
- Cintra
- Goldman Sachs
- Macquarie
- Transurban
- Ontario Teachers



Many types of investors are seeking exposure to the infrastructure asset class.

Institutional investors are seeking long-term exposure to the asset class – they are not underwriting an exit but growth in dividend yield.

Fund	Location	Fund Size (\$Bn)	Infrastructure Allocation	Key Transactions
CDPQ	Quebec	102.4	Not specific	Hochtief Airports (40%), YBR (27%)
OTPP	Ontario	84.3	10%	Orient Overseas Ports
CPPIB	Ontario	81.3	10%	Major investor in both MEIF and Terra Firma
BC Inv. Mgmt. Corp.	British Columbia	66.0		MEIF, Wales & the West RDN
OMERS (Borealis)	Ontario	35.7	15%	South of England & Scotland RDNs (25%)
Goldman Sachs Inf. Fund	New York/London	6.0	100%	New infrastructure-focused private equity fund sponsored and managed by Goldman Sachs
Carlyle Group Inf. Fund	New York/ Washington, D.C.	1.0	100%	Fund headed by former Bechtel and Citigroup executives
ABN Amro	New York	1.2	100%	Recently announced Fund with stated focus in Europe and Canada, but likely looking to pursue assets in US
Deutsche Bank RREEF	New York	1.0	100%	Established Fund with stated focus on European Infra Market, headquarters in US

- European and US pension funds and insurance companies are also seeking exposure to the asset class.

	Europe	United States	Canada	Australia
Funds Under Management	\$2,500 Bn	\$5,000 Bn	\$500 Bn	\$400 Bn
Property Allocation	6%	4%	10%	10%
Infrastructure Allocation	< 1%	n/a	2%	4%

Source: Macquarie Bank.

Market Participants and Competitive Factors

Recent Bidders in US Toll Road Market

Market Participants

- Transurban
- Macquarie
- Cintra
- Babcock & Brown
- European Construction Firms
- International Financial Conglomerates
- European Toll Road Operators
- US Investment Banks/Infrastructure Funds

Competitive Factors

- Toll Road Operator Experience
- Construction Expertise
- US Headcount
- Financial Expertise
- Equity “Deep Pockets”
- Foreign Ownership Issues
- Focused Strategy



Goldman Sachs was the lead advisor to the City on the \$1.8 billion concession lease of the Chicago Skyway.

Description of Chicago Skyway

- 7.8 miles divided elevated toll road and toll bridge with 3 lanes in each direction
- Connects to Indiana East-West Toll Road and Dan Ryan Expressway
- Current tolls: \$2 per car, \$1.20 per truck axle – no change since 1993
- Mostly cash-only tolling
- Lack of Competing Direct Route
- Small Impact of Toll Increases on Traffic Demand
- Strong EBITDA Margins and Revenue Growth Rates
- Limited Future Capital Expenditures
- Modernization Potential

The Road Network



Financial Overview

(US\$ in millions)	2003 (a)	2004	2005 (a)	2006 (a)
Revenues (\$) (b)	39.8	41.2	49.6	50.1
Operating Expenses (\$) (b)	11.4	12.2	12.6	13.1
EBITDA (\$)	28.4	29.0	37.0	37.1
EBITDA Margin	71.3%	70.4%	74.5%	73.9%
Total Vehicles (000)	17,422	17,395	16,260	16,422
CAGR	5 Yr Hist.	3 Yr Hist.	5 Yr Proj.	10 Yr Proj.
Revenues	3.0%	11.6%	8.6%	10.3%
EBITDA	1.5%	14.1%	10.1%	12.4%

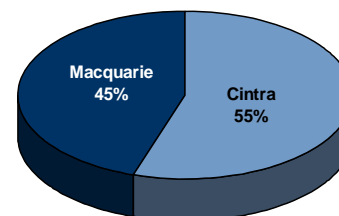
(a) Lane closures due to CIP impacted traffic and revenues (completion of CIP in December 2004).

(b) Source: Audited financial statements.

(c) Source: Macquarie Website

Ownership and Financing Structure

Ownership Structure



Estimated IRR = 12.3%(c)

Initial Financing Structure

Debt	\$1,000	53%
Equity	882	47
Total	\$1,882	100%

\$1.4 bn Debt Refinancing

- Achieved non-recourse financing
- Improved match funding of assets and liabilities versus bank financing
- Reduced financing cost through several features including an innovative accreting swap provided by Goldman Sachs Capital Markets L.P.

Goldman Sachs was the lead advisor to the State on the \$3.85 billion 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

The Road Network



Financial Overview^(a)

(in millions)	2004A	2005A	2006E ^(b)	2007E ^(b)
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 ^(c)	59.7	60.6	63.9	98.0
% Margin	65.0	63.3	63.5	71.8
CAGR	5 Yr Hist.	3 Yr Hist.	5 Yr Proj.	10 Yr Proj.
Revenue	1.7%	3.4%	8.2%	10.3%
EBITDA	4.2%	9.3%	10.0%	13.0%

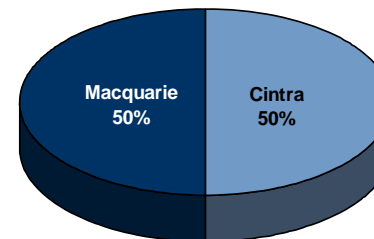
(a) Source: Wilbur Smith/State of Indiana

(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

Ownership and Financing Structure

Ownership Structure



Estimated IRR = 12.5%^(d)

Financing Structure

Bank Debt	\$3,278.5	81%
Equity	770.1	19
Total	\$4,048.6	100%

Acquisition bank debt

- Tenor is 9 years
- Step up in margins
- Partial cash sweep

Hedging

- Fully hedged debt profile for 20 yrs
- Swap rates step up gradually from 2006 to 2026, starting at 3% p.a.

(d) Source: Macquarie Website

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 co-manager 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.