

AK LEGISLATURE FINANCE COMMITTEES FILES 2007-2008 3336

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# North Slope Central Gas Facility

- On the Alaska North Slope the Central Gas Facility is a gas processing plant, which sends natural gas liquids which are produced at the TAPS inlet:
- AS 43.55.009 (27) “point of production” means (A) for oil ... the device through which the oil enters into the facilities of a carrier pipeline...in a condition of pipeline quality...”
- AS 43.55.009 (10) “oil” means (A) crude petroleum oil: and (b) all liquid hydrocarbons that are recovered...by gas processing in a gas processing plant.

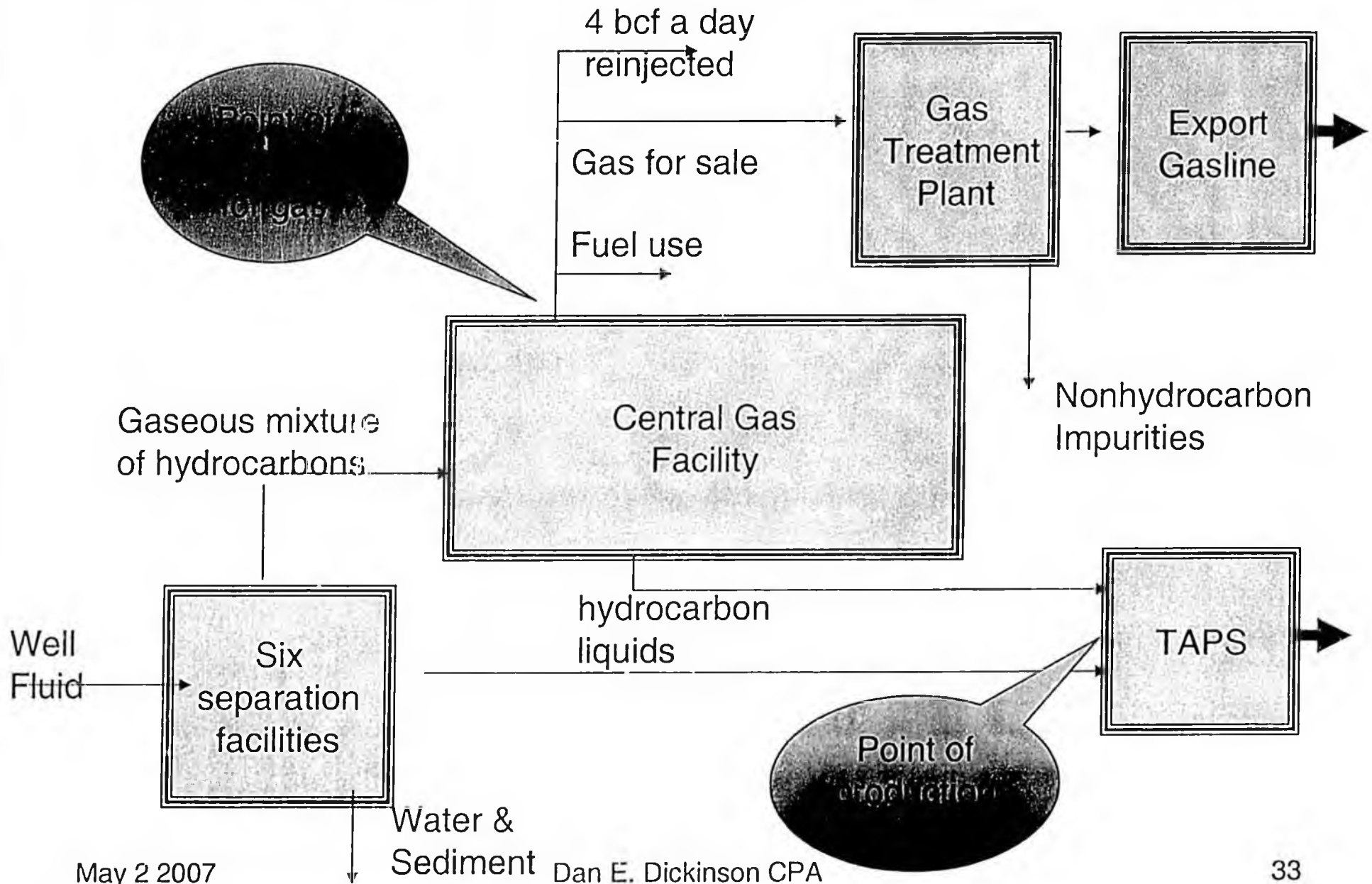
# North Slope Central Gas Facility

- On the Alaska North Slope the Central Gas Facility is a gas processing plant,
- AS 43.55.020 (e) "... gas used in the operation of a lease or property in the state in drilling for or producing oil or gas or for repressuring...is not considered...as ... gas produced from a lease or property."

## Answer to the Question:

- If CGF remains a separate plant and sends gas to a Gas Treatment Plant (GTP), gas would be produced as it is metered out of plant. The GTP would be downstream of the point of production for the gas and thus associated operating and capital costs would not qualify as lease expenditures under AS 43.55.165 (a) nor would capital costs qualify for credit treatment under AS 43.55023 (a).

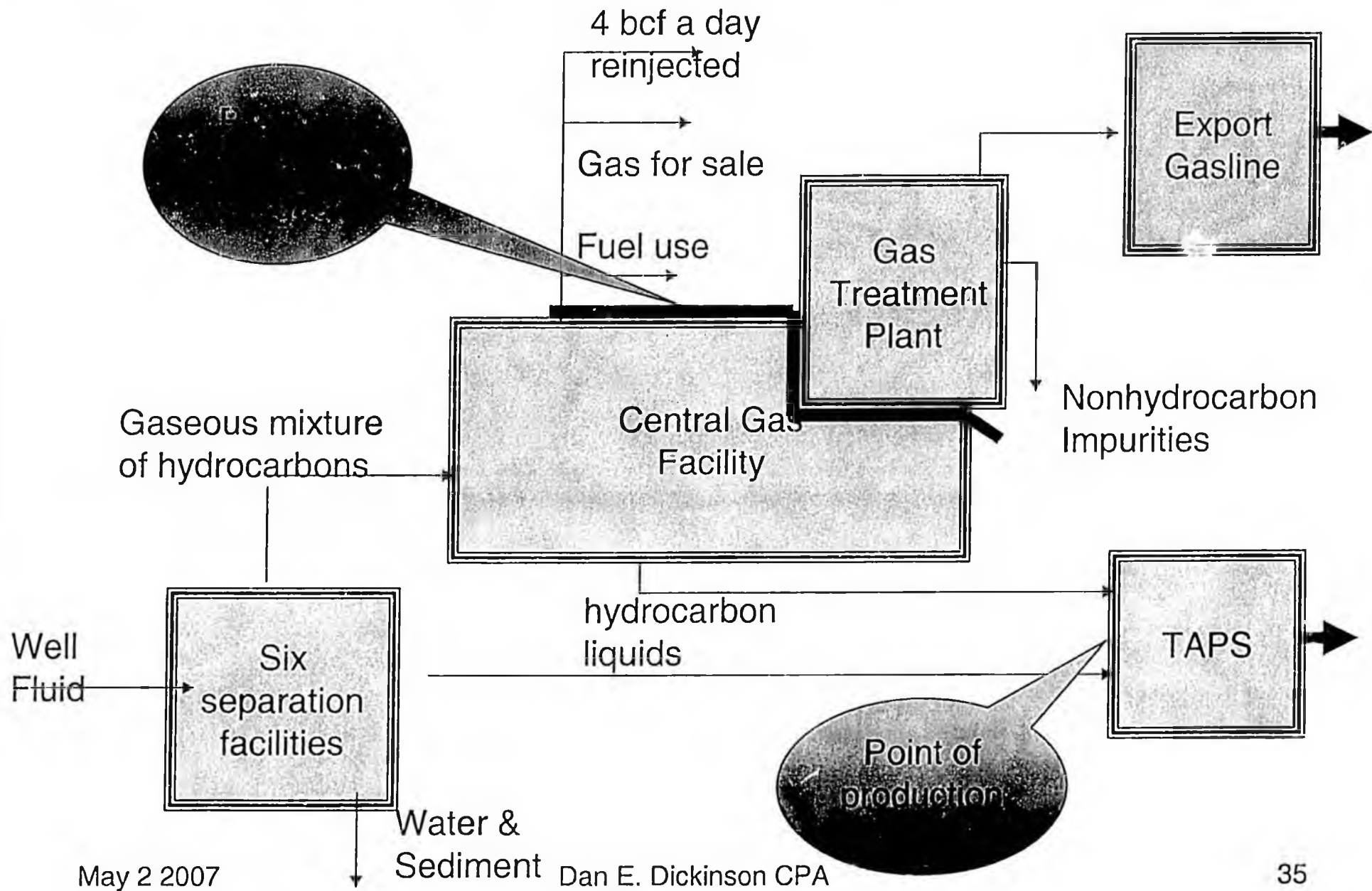
# Prudhoe Bay: Point of Production under the PPT with a GTP



# Answer to the Question:


- If CGF becomes integrated into a Gas Treatment Plant (GTP) (produced gas is not metered), then the gas would be produced within that integrated facility, at the furthest point upstream of the beginning of gas treatment or the end of gas processing. If the plants are integrated, the risk is that some gas processing will move downstream of the point of production, not that gas treatment will move upstream of the point of production.

# Prudhoe Bay: Point of Production under the PPT w/integrated GTP



May 2 2007

Water & Sediment Dan E. Dickinson CPA

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- We are trying to determine how attractive an investment this pipeline is. Antony Scott, Commercial Analyst, DNR, Oil and Gas, in his April 11, 2007 presentation shows that using the IRR metric this project can have very high rates of return, particularly with a third party line. However we believe he does not include the cost of shippers' firm transportation commitments in his numbers when comparing an independent pipeline with a producer owned pipeline. How might this affect his results?

# Firm Transportation

- Shipper makes a Firm Transportation commitment (FT) to pay the capital portion of the tariff whether it uses the pipeline or not.
- It is that financial commitment that underwrites the pipeline:
  - Required by FERC before approving a project
  - Required by lenders before lending money to a project.

# Producers' returns as both shippers + pipeline owners



	NPV	IRR	P/I	NPV per BOE
\$3.50	3.0	12.6%	1.3	\$0.37
\$4.00	5.0	14.0%	1.4	\$0.60
\$4.50	6.9	15.4%	1.6	\$0.83
\$5.00	8.7	16.7%	1.7	\$1.06
\$5.50	10.6	17.9%	1.9	\$1.28
\$6.00	12.4	19.0%	2.0	\$1.50
\$6.50	14.2	20.1%	2.2	\$1.72
\$7.00	16.0	21.1%	2.3	\$1.93
\$7.50	17.7	22.1%	2.5	\$2.14
\$8.00	19.3	23.0%	2.6	\$2.33
\$8.50	20.8	23.9%	2.7	\$2.51

# Producer Upstream Returns

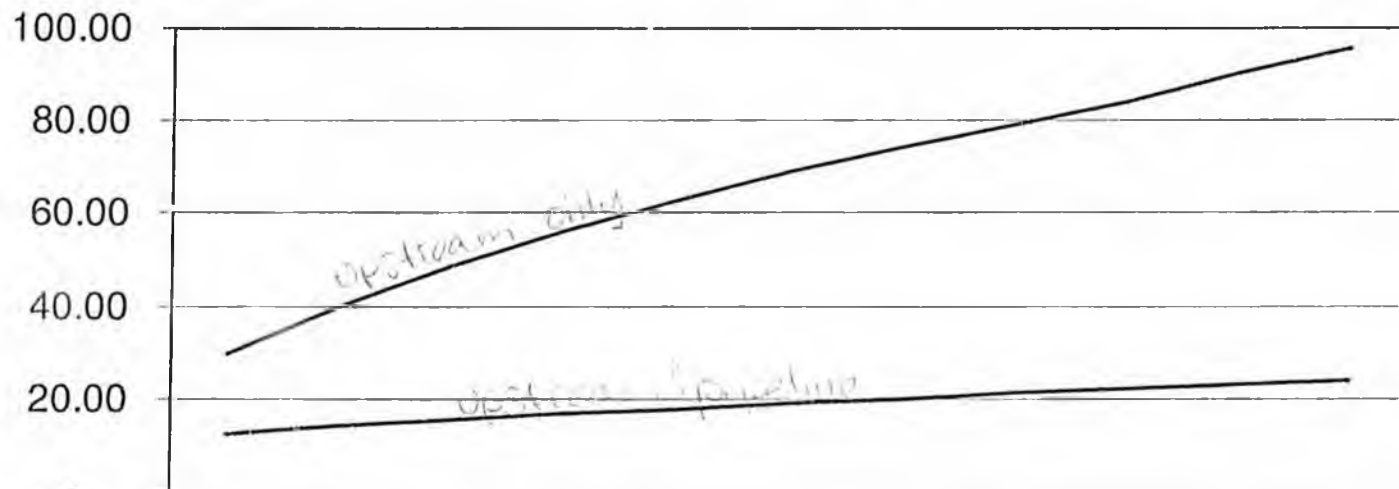
Base case cost = \$20.5B

# AGIA

The Alaska Gasline Inducement Act

	NPV	IRR	P/I	NPV per BOE
\$3.50	4.1	29.8%	3.2	\$0.49
\$4.00	6.1	39.7%	4.3	\$0.74
\$4.50	8.1	48.7%	5.3	\$0.98
\$5.00	10.1	56.3%	6.4	\$1.22
\$5.50	12.1	62.9%	7.5	\$1.46
\$6.00	14.0	68.9%	8.5	\$1.70
\$6.50	16.0	74.2%	9.5	\$1.93
\$7.00	17.8	79.2%	10.5	\$2.15
\$7.50	19.6	83.9%	11.5	\$2.37
\$8.00	21.3	90.4%	12.4	\$2.57
\$8.50	22.9	95.6%	13.2	\$2.76

### Calculated IRR at various price levels



	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5
— Upstream & Pipeline	12.6	14.0	15.4	16.7	17.9	19.0	20.1	21.1	22.1	23.0	23.9
— Upstream Only	29.8	39.7	48.7	56.3	62.9	68.9	74.2	79.2	83.9	90.4	95.6

# Internal Rate of return

Step One: Model An Owned Project				
	CapCosts	Op Costs	Revenues	Cash Flows
Units:		1000	1000	
Dollars		0.1	5	
Product		100	5000	
Year				
0	(20,000)			(20,000)
1		(100)	5,000	4,900
2		(100)	5,000	4,900
3		(100)	5,000	4,900
4		(100)	5,000	4,900
5		(100)	5,000	4,900
6		(100)	5,000	4,900
7		(100)	5,000	4,900
8		(100)	5,000	4,900
9		(100)	5,000	4,900
10		(100)	5,000	4,900
			IRR:	21%

# Internal Rate of Return

Step Two: Model Capital Component of Tariff				
Using PAYMENT function				
Units:				
Dollars	Balance	Interest	Payment	Balance
Product		10%		
Year				
0				20,000.00
1	20,000.00	2,000.00	(3,254.91)	18,745.09
2	18,745.09	1,874.51	(3,254.91)	17,364.69
3	17,364.69	1,736.47	(3,254.91)	15,846.25
4	15,846.25	1,584.63	(3,254.91)	14,175.97
5	14,175.97	1,417.60	(3,254.91)	12,338.66
6	12,338.66	1,233.87	(3,254.91)	10,317.62
7	10,317.62	1,031.76	(3,254.91)	8,094.47
8	8,094.47	809.45	(3,254.91)	5,649.01
9	5,649.01	564.90	(3,254.91)	2,959.01
10	2,959.01	295.90	(3,254.91)	0.00

# Internal Rate of Return

Step Three: Model Third Party Line with no FT but with tariff			
	Tariff	Revenues	Cash Flows
Units:			
Dollars			
Product			
Year			
0			
1	(3,354.9)	5,000.0	1,645.1
2	(3,354.9)	5,000.0	1,645.1
3	(3,354.9)	5,000.0	1,645.1
4	(3,354.9)	5,000.0	1,645.1
5	(3,354.9)	5,000.0	1,645.1
6	(3,354.9)	5,000.0	1,645.1
7	(3,354.9)	5,000.0	1,645.1
8	(3,354.9)	5,000.0	1,645.1
9	(3,354.9)	5,000.0	1,645.1
10	(3,354.9)	5,000.0	1,645.1
		IRR:	#NUM!

# Internal Rate of Return

Step Four: Model Third Party Line with some additional capital			
	Tariff	Revenues	Cash Flows
Year			
0			(100.0)
1	(3,354.9)	5,000.0	1,645.1
2	(3,354.9)	5,000.0	1,645.1
3	(3,354.9)	5,000.0	1,645.1
4	(3,354.9)	5,000.0	1,645.1
5	(3,354.9)	5,000.0	1,645.1
6	(3,354.9)	5,000.0	1,645.1
7	(3,354.9)	5,000.0	1,645.1
8	(3,354.9)	5,000.0	1,645.1
9	(3,354.9)	5,000.0	1,645.1
10	(3,354.9)	5,000.0	1,645.1
			1645%

# Internal Rate of Return

Step Five: Model Third Party Line with some more additional capital			
	Tariff	Revenues	Cash Flows
Year			
0			(2,000.0)
1	(3,354.9)	5,000.0	1,645.1
2	(3,354.9)	5,000.0	1,645.1
3	(3,354.9)	5,000.0	1,645.1
4	(3,354.9)	5,000.0	1,645.1
5	(3,354.9)	5,000.0	1,645.1
6	(3,354.9)	5,000.0	1,645.1
7	(3,354.9)	5,000.0	1,645.1
8	(3,354.9)	5,000.0	1,645.1
9	(3,354.9)	5,000.0	1,645.1
10	(3,354.9)	5,000.0	1,645.1
			82%

# Internal Rate of Return

Step Six: Model Third Party Line with yet more additional capital			
	Tariff	Revenues	Cash Flows
Year			
0			(6,750.0)
1	(3,354.9)	5,000.0	1,645.1
2	(3,354.9)	5,000.0	1,645.1
3	(3,354.9)	5,000.0	1,645.1
4	(3,354.9)	5,000.0	1,645.1
5	(3,354.9)	5,000.0	1,645.1
6	(3,354.9)	5,000.0	1,645.1
7	(3,354.9)	5,000.0	1,645.1
8	(3,354.9)	5,000.0	1,645.1
9	(3,354.9)	5,000.0	1,645.1
10	(3,354.9)	5,000.0	1,645.1
	IRR:		21%

# FASB 47 Disclosure of Long Term Obligations (1981)

- This statement requires that an enterprise disclose its commitments under unconditional obligations that are associated with suppliers' financing arrangements. Such obligations often are in the form of take-or-pay contracts and throughput contracts.

# FASB 47 Disclosure of Long Term Obligations (1981)

- Example 2
- 27. C Company has entered into a throughput agreement with a natural gas pipeline providing that C will provide specified quantities of natural gas (representing a portion of capacity) for transportation through the pipeline each period while the debt used to finance the pipeline remains outstanding. The tariff approved by the Federal Energy Regulatory Commission contains two provisions, a demand charge and a commodity charge. The demand charge is computed to cover debt service, depreciation, and certain expected expenses.

# FASB 47 Disclosure of Long Term Obligations (1981)

- 27. (cont.) The commodity charge is intended to cover other expenses and provide a return on the pipeline company's investment. C Company must pay the demand charge based on the contract quantity regardless of actual quantities shipped, while the commodity charge is applied to actual quantities shipped. Accordingly, the demand charge multiplied by the contracted quantity represents a fixed and determinable amount.

# FASB 47 Disclosure of Long Term Obligations (1981)

- 28. C' disclosure might be as follows:
  - C company has signed an agreement providing for the availability of needed transportation capacity through 1990. Under that agreement, the company must make specified minimum payments monthly. The aggregate amounts of such required payments at December 31, 19X1 is as follows (in thousands):

# FASB 47 Disclosure of Long Term Obligations (1981)

# FASB 47 Disclosure of Long Term Obligations (1981)

- 28 (cont).
- In addition the company is required to pay additional amount depending on actual quantities shipped under the agreement. The companies total payments under the agreement were (in thousands) \$6,000 in 19W9 and \$5,000 both in 19X0 and in 19X1.

### Contractual Commitments

The following table summarizes the Group's principal contractual obligations at December 31, 2003. Further information on borrowings and capital leases is given in Item 18 — Financial Statements — Note 29 on page F-47 and further information on operating leases is given in Item 18 — Financial Statements — Note 17 on page F-29.

Expected payments by period under contractual obligations and commercial commitments	Payments due by period						2009 and thereafter
	Total	2004	2005	2006	2007	2008	
				(\$ million)			
Borrowings (a)	20,143	9,366	2,674	2,786	1,299	945	3,073
Finance lease obligations	4,634	127	243	248	240	248	3,528
Operating leases	8,115	1,275	1,066	895	799	728	3,352
Decommissioning liabilities	7,504	86	156	173	154	156	6,779
Environmental liabilities	2,430	465	441	402	276	186	660
Pensions (b)	26,682	633	649	652	659	666	23,423
Other post-employment benefits (c)	11,768	242	252	259	263	264	10,488
Unconditional purchase obligations (d)	67,828	45,491	7,076	3,133	1,388	1,655	3,585

(a) Expected payments exclude interest payments on borrowings.

(b) Represents the expected future contributions to funded pension plans and payments by unfunded pension plans.

(c) Represents the expected future payments for postretirement benefits.

(d) Represents any agreement to purchase goods or services that is enforceable and legally binding and that specifies all significant terms. The amounts shown include arrangements to secure long-term access to supplies of crude oil, natural gas, feedstocks and pipeline systems. In addition, the amounts shown for 2004 include purchase commitments existing at December 31, 2003 entered into principally to meet the Group's short term manufacturing and marketing requirements. The price risk associated with these crude oil, natural gas and power contracts is discussed in Item 11 — Quantitative and Qualitative Disclosures about Market Risk on page 170.

The following table summarizes the nature of the Group's unconditional purchase obligations.

Unconditional purchase obligations payments due by period	Payments due by period						2009 and thereafter
	Total	2004	2005	2006	2007	2008	
				(\$ million)			
Crude oil and oil products	22,043	19,350	844	452	422	374	601
Natural gas	19,439	13,189	2,575	1,141	489	398	1,647
Chemicals and other refinery feedstocks	10,049	2,277	1,666	753	563	545	4,245
Utilities	11,612	9,622	1,231	289	62	54	354
Transportation	2,814	738	510	365	247	204	750
Use of facilities and services	1,871	315	250	133	105	80	988
Total	67,828	45,491	7,076	3,133	1,888	1,655	8,585

# BPs 2003 20(f)

- Unconditional purchase obligations (d)
- (d) Represents any agreement to purchase goods or services that is enforceable and legally binding and that specifies all significant terms. The amounts shown include arrangements to secure long-term access to supplies of crude oil, natural gas feedstocks and pipeline systems.
- Obligations set out for five years, after five years and in total

# Why does this matter?

- Moody' Investors Service
- Authors (or "Contacts"):
- Barbara Havlicek, Kevin Stoklosa, Greg Jonas, Laura Levenstein, Pamela Stumpp, Michel Madelain, Trevor Pijper, Wolfgang Draak, Waylon Iserhoff, Brian Cahill, Thomas Keller, Takohiro Morita
- The Analysis of Off-Balance Sheet Exposures, A Global Perspective
- July 2004

# Moody's Rating Methodology

- Take-Or-Pay Contracts
- Take or pay contracts are another form of purchase commitment typically found in the ... energy industry. ... Such contracts can be problematic if market conditions and raw material prices change or if the price of the end product drops. Regardless of whether or not the contract becomes problematic, Moody's factors payments under take-or-pay contracts into the analysis of future cash flows and may also adjust the balance sheet if necessary. (Havlicek page 7)

# Why does this matter?

- Standard & Poor's
- Authors (and "Analytical Contacts"):
- Solomon B. Samson, Scott Sprinzen, Emmanuel Dubois-Pelerin, Kenneth C. Pfeil
- Corporate Ratings Criteria
- 2006

# Standard and Poor's Rating Methodology

- Off balance-sheet financing
  - Analysis of liabilities is not limited to those shown on the company's balance sheet. Off balance-sheet items factored into the leverage analysis include the following:
    - Operating leases
    - Guarantees, debt of joint ventures and unconsolidated subsidiaries
    - Take-or-pay contracts and obligations under throughput and deficiency agreements...
  - (Samson pgs. 28-29)

# Standard and Poor's Rating Methodology

- Various methodologies are used to determine the proper adjustment value for each off-balance-sheet item. In some cases, the adjustment is straightforward. For example, the amount of guaranteed debt can simply be added to the guarantor's liabilities. Other adjustments are more complex or less precise. (Samson pg. 29)

# Closing Thought:

- E.C. Capen and D.F. Casey The Economics of Creative Financing

Society of Petroleum Engineers 11664  
(1983)

# Closing Thought:

- Now and then, someone comes in and announces that he has discovered the business man's equivalent to the Fountain of Youth – a corporate money tree. The person will instruct us that his pet project (PP) need not compete for cash in the budgeting process because he has found a benefactor, Mr. S. Claus, willing to put up the money at no cost save some “small monthly payments” to be worked out later. These payments should come from PP's profits and represent no real drain on the company.

# Close of Closing Thought

- To be sure we seldom see requests as blatant as portrayed above, but we nevertheless sense some misunderstandings about how to evaluate projects that have alternatives to outright purchase of goods and equipment. Has the old maxim prohibiting free lunches somehow been set aside with regard to so called creative financing? No, more likely the lunch costs more than normal, but we're not always sure who pays. (Capen & Casey pg. 241)

MOGEL /

EWING

5/9/07



# FERC's Regulation of Interstate Natural Gas Pipelines


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**William A Mogel**

**Saul Ewing LLP**

Senate Finance Committee

May 8, 2007



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THE FERC'S REGULATORY REGIME,  
WHICH IS DESIGNED TO PROTECT  
CONSUMERS, PROHIBITS AN  
INTERSTATE NATURAL GAS PIPELINE  
FROM ACTING IN AN ANTI-  
COMPETITIVE, DISCRIMINATORY OR  
PREFERENTIAL MANNER TO ANY  
SHIPPER.



## QUALIFICATIONS

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- 30 years as a FERC practitioner.
- Author/Editor of 17 books on energy law.
- Writings cited as authority by the US Supreme Court.
- Adjunct lecturer at law school on energy law.
- Regulatory practice includes energy projects in foreign countries.



# CERTIFICATES OF PUBLIC CONVENIENCE AND NECESSITY

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- Unlike oil pipelines, before a natural gas pipeline can commence construction and operation it must first obtain a certificate after making a showing of public benefit.
- FERC can condition the certificate on numerous matters, including when construction must be completed.
- A pipeline cannot expand, terminate or “abandon” service without prior approval of FERC.



# RATES AND TERMS AND CONDITIONS OF SERVICE

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- FERC must approve all rates, rate changes and terms and conditions in a natural gas pipeline's tariff.
- FERC has authority to investigate existing rates of a natural gas pipeline.
- Rates that are not "just and reasonable" may be rejected and refunds can be ordered.



## INTERSTATE NATURAL GAS PIPELINES ARE REQUIRED TO BE “OPEN ACCESS”

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- Capacity must be allocated on a non-discriminatory basis to affiliated and non-affiliated shippers.
- Rates charged and terms and conditions for capacity must be just and reasonable and may not discriminate or grant a preference to shippers similarly situated.
- Capacity release programs must be non-discriminatory and transparent.



INTERSTATE PIPELINES ARE REQUIRED  
TO ADHERE TO COMPREHENSIVE  
STANDARDS OF CONDUCT

---

- No preference in sharing of information, setting rates, and terms and conditions between the pipeline and its affiliated marketing company.



## FERC HAS BEEN GRANTED ADDITIONAL PUNITIVE AUTHORITY BY THE EAct of 2005

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- To punish violations of its statutes and regulations by:
  - Fines of up to \$1 million per violation per day.
  - Disgorgement of unjust profits.
  - Referrals to the Justice Department for criminal prosecution.



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The FERC's regulatory regime for interstate natural gas pipelines is significantly different from oil pipelines and changes since 1985 insure that pipeline's will not act unlawfully or discriminate against shippers.

# INDUSTRY PRESENTATIONS

SULLIVAN +  
CROMWELL

SULLIVAN & CROMWELL LLP

# Project Finance Workshop

An Introduction to Project Finance  
for Oil, Gas and Pipelines

*April 25, 2007*

*Presented 4/26/07 am*

# Introduction

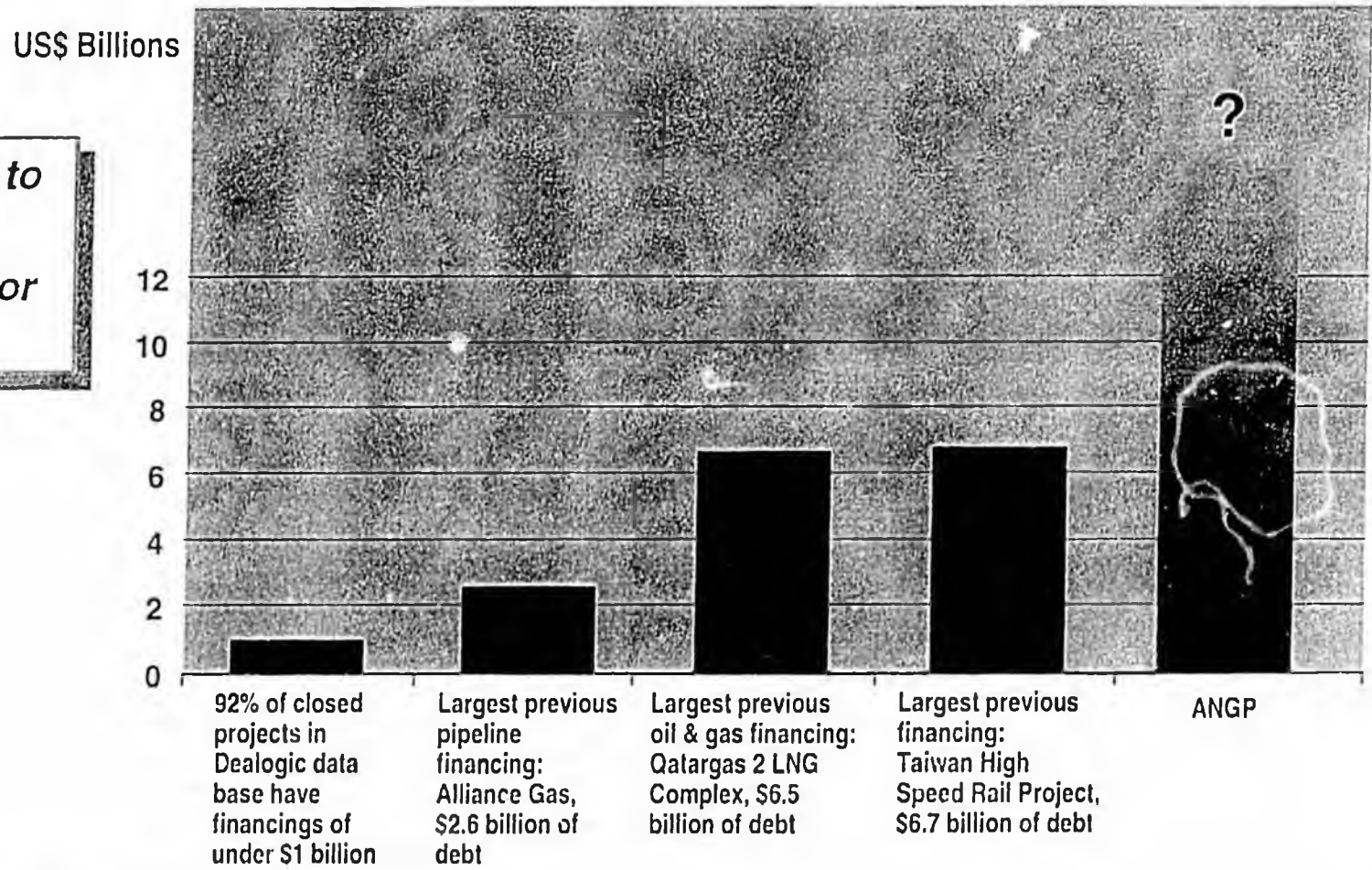
## Outline

- What is Project Finance?
- Risk Allocation and Mitigation
- The Current Project Finance Market
- Building Blocks of a Typical Project Financing
- Project Finance for Oil, Gas and Pipelines

# Introduction

- Introductory level
- The problem of precedent

*Premature to talk about specific financing for ANGP*



# Introduction

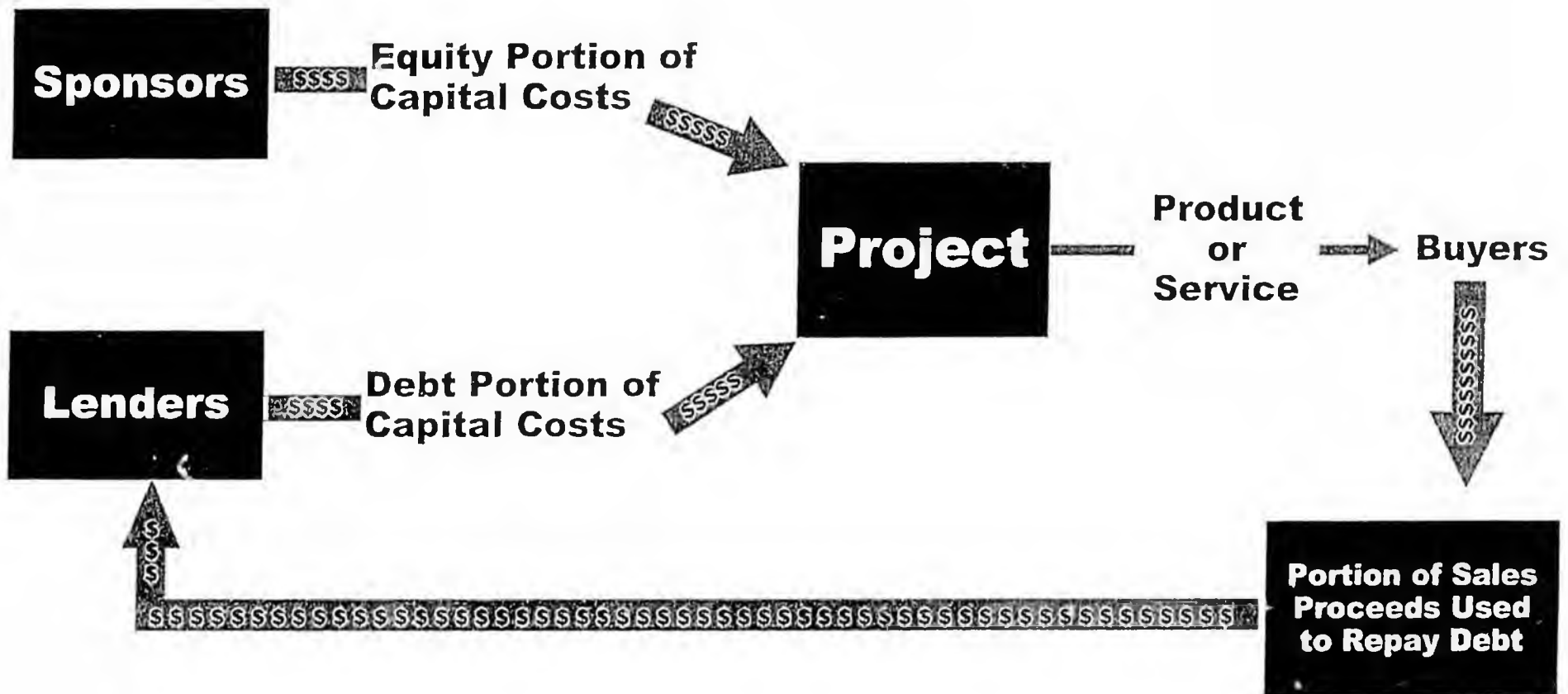
## Key Points

- Premature to discuss any specific ANGP financing because project design and scope, identity of sponsors, nature of commercial contracts, sponsor financing objectives, rules for use of Federal guarantees, market conditions at time of financing and other factors are all unknown
- Can talk about main drivers of oil, gas and pipeline financing generally, to assist understanding of how development of ANGP might influence financing

*Section 1*

**What is Project Finance?**

# 1. What is Project Finance?



# 1. What is Project Finance?

- At one point virtually synonymous with power plant financing
- Today, project finance is not a single financial product, but different products for different markets:
  - e.g., airplanes, toll-roads, upstream oil, power plants – all very different products, markets and practices

*Beware of generalizations*

# 1. What is Project Finance?

- What do these different “project finance” products and markets have in common?

**NOT** corporate finance

- In corporate finance:
  - The borrower is usually a diversified enterprise whose future net cash flows can be difficult to predict
  - The lender has full recourse to all present and future assets and revenues of the borrowing group
  - The structure and covenants of the major corporate finance debt products are highly standardized

## Instead, Project Finance is ...

- A tailored product
- A highly structured product
- A non-diversified credit
- Often “greenfield”
- A cash-flow-based credit
- Usually based on contractual commitments
- Limited recourse
- A tool whose purpose is sometimes risk-sharing and risk-mitigation, as well as fund-raising

# Project Finance is ...

- ***A tailored product***
  - Debt structure and terms crafted to reflect the risk and economic profile of the specific project
  - In contrast, most other financial products (e.g., high yield debt, investment grade bonds, private placement debt) have highly standardized features and covenants

*Even in the most active parts of market, e.g. U.S. private power, all attempts to standardize terms and conditions have failed.*

# Project Finance is ...

## ■ *A highly structured product*

- Project loans typically involve structural elements such as
  - completion support
  - account structures
  - off-take commitments
  - security interests
  - project covenants and
  - structured remedies

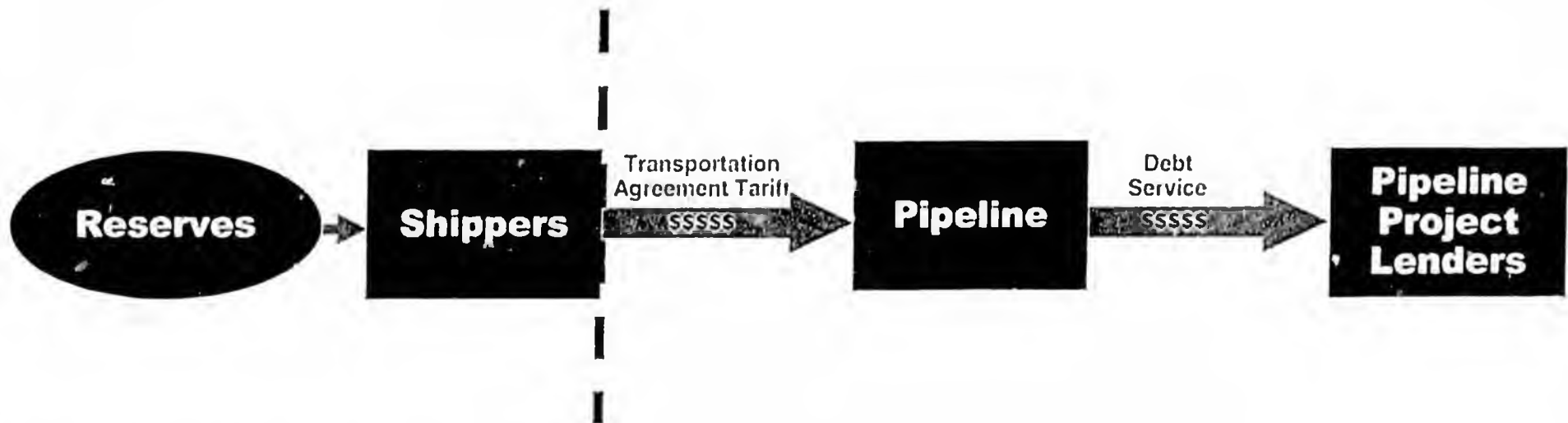
that differ from those commonly found in corporate credits.

- These structural elements are crafted to satisfy sponsor objectives and credit concerns and to match the risk profile of the specific project

# Project Finance is ...

- *A non-diversified credit*

- One business, one product, one committed source of cash flows
- But, also indirectly a function of the value chain that lies “behind” the project:
  - contractual commitments by customers
  - and all the real-world factors that determine if those commitments will be met



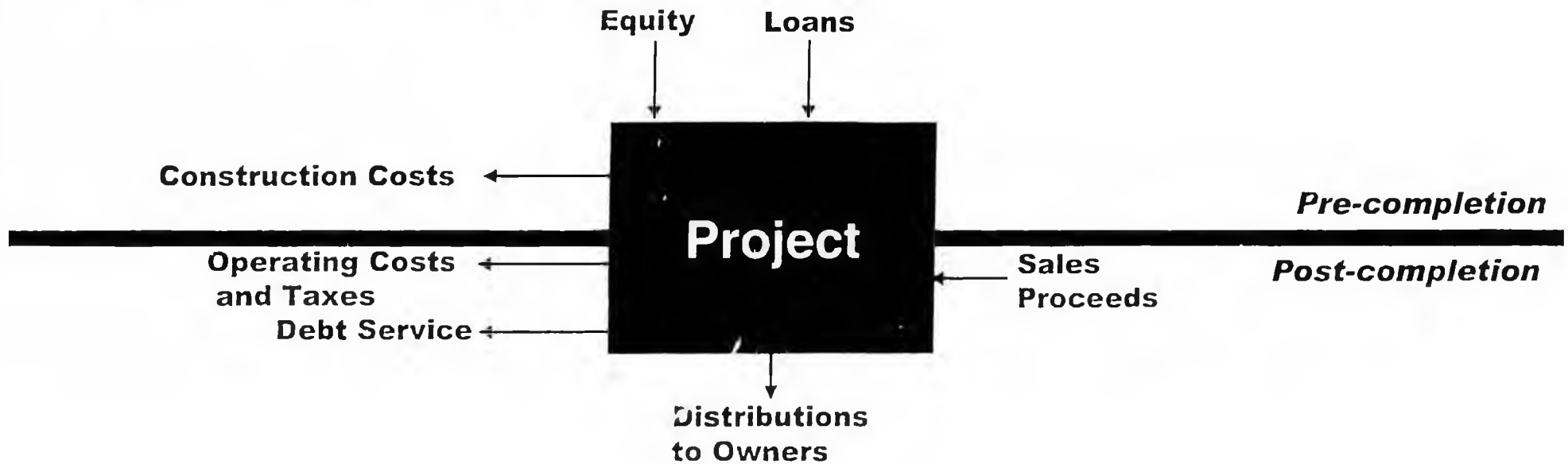
# Project Finance is ...

- ***Often “greenfield”***
  - When loan is disbursed, business does not exist
  - In “greenfield” project — threshold risk is whether the project can get
    - built on time,
    - within budget, and
    - will work as promised, minimizing likelihood of force majeure events
  - Lenders generally unwilling to take entire unmitigated completion risk — sponsors always bear primary, or “first layer” of risk through equity and/or completion support
  - Many projects fail because adequate completion support is not available

# Project Finance is ...



- *A cash-flow-based credit*



- Primary credit metrics are cash-based:  
ratio of "cashflow available for debt service" to debt service

# Project Finance is ...



- *Usually based on contractual commitments*
  - Contractual commitments are generally in an amount sufficient to cover debt service and an agreed “cushion,” and for a term no shorter than term of debt
    - Examples
      - Power plant: power purchase agreement
      - Pipeline: transportation agreements
    - Exceptions
      - Projects that produce “terminal market” commodities (copper, market crude oil)
      - There is a limited appetite for “merchant risk” (market risk) in deep and well understood markets (principally electric power)
  - *Contractual commitments are only as good as the parties behind them.*

# Project Finance is ...



## ■ *Limited recourse*

- “**General Recourse**” – means all of the present and future assets and revenues of the borrowing group are available to satisfy the debt.
- “**Limited Recourse**” – means that only specified assets or revenue streams are available to satisfy the debt – neither borrower nor its affiliates “owes” the debt if it cannot be satisfied from the agreed assets or revenue stream.

# Project Finance is ...



- *A tool whose purpose is sometimes risk-mitigation and risk-allocation, as well as fund-raising*
- **As such, it sometimes enables the project by**
  - providing some partners with necessary funds,
  - lowering financing costs,
  - mitigating or sharing risks,
  - strengthening the project through involvement of financing “partners”

Section 1: What is Project Finance?

## Summary of Main Points

- Hard to generalize – different for different types of projects
- Tailored and structured for the particular project
- Following completion, loans for repayment look only to project cash flows, typically based on contractual commitments
- Often serves important purposes in addition to simply raising funds

*Section 2*

**Risk Allocation and Mitigation**

## Key point

- Sponsors always bear all risks on equity investment
- Sponsors bear primary risk of loss – 100% loss of equity investment before first dollar of loss on debt

*The sponsors' economic stake is the foundation of the credit — not just a cushion against loss, but the basis for the lenders' expectation that the sponsors will be well-motivated to make the project a success*

## Key point (cont'd)

- Traditional maxim: “Project finance is a bet on the sponsors.”
  - Lenders expect “voluntary” fix of post-completion problems because of financial (equity) stake, strategic factors and/or reputational risk.
  - This leads to lender focus on
    - Size of equity stake and leverage
    - Operating experience
    - Financial strength
    - Strategic story

## 2. Risk Allocation and Mitigation

- Within the debt portion of the investment, project finance sometimes allocates risk of loss to those best able to bear it
- Examples:
  - **Price/market risk** — often borne by buyers under committed off-take contracts, then borne by lenders
  - **Political** — sometimes borne by political risk insurers
  - **Tax/regulatory** — often mitigated by host government through stability assurances
  - **Construction/completion** — primarily borne by project sponsors
  - **Operational** — primarily borne by project company

*Consistent with general market practice, the legislation authorizing federal guarantees for the Alaska Natural Gas Pipeline specifically contemplates some form of completion support from project sponsors*

## 2. Risk Allocation and Mitigation

- **Examples: Mitigation and Allocation of Completion Risk**

Quality of feasibility/budget work



Contracting strategy (if available)



Quality of project execution



Budgeted contingency



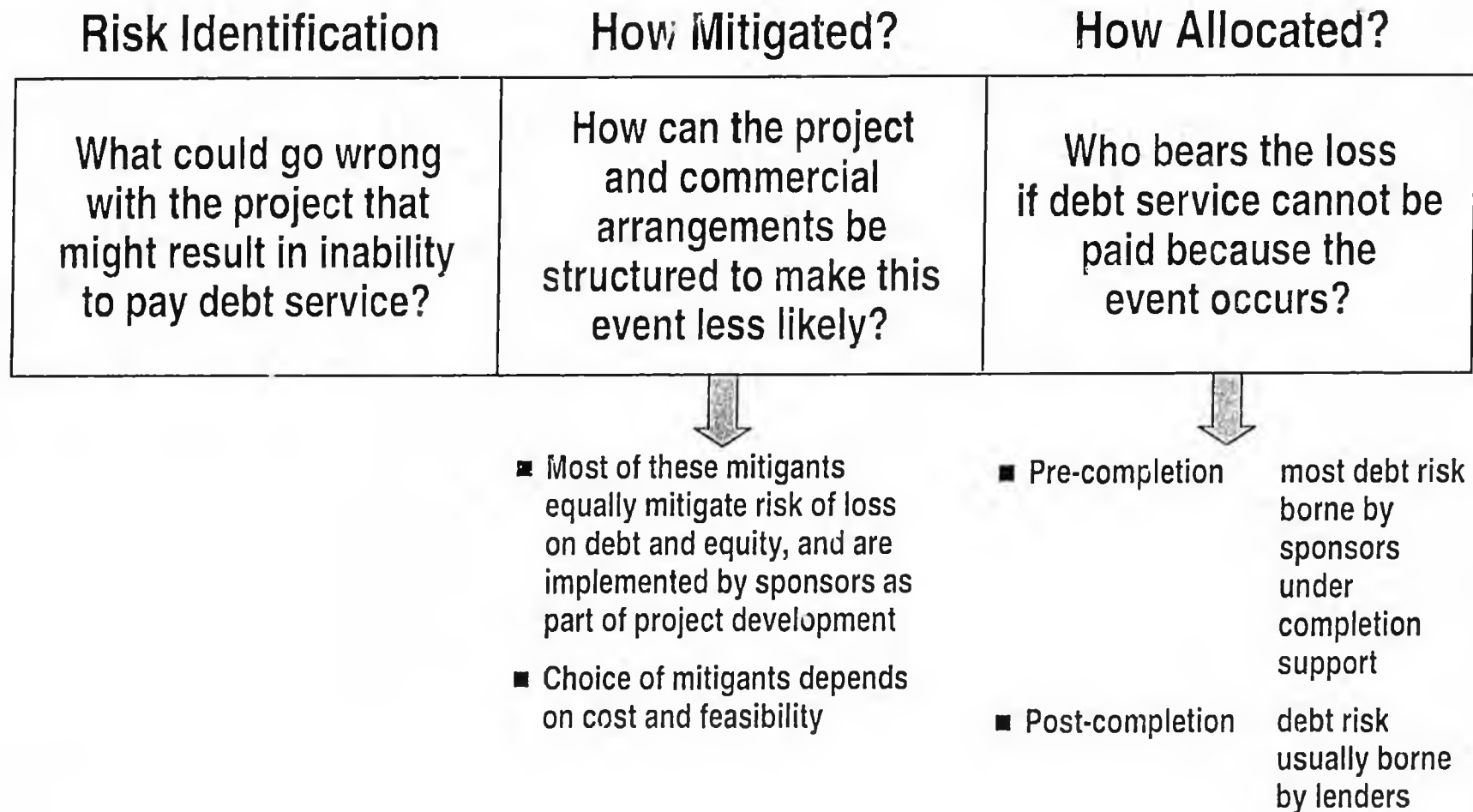
Any third-party pre-committed over-run financing

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Sponsor completion support

MITIGATION  
ALLOCATION

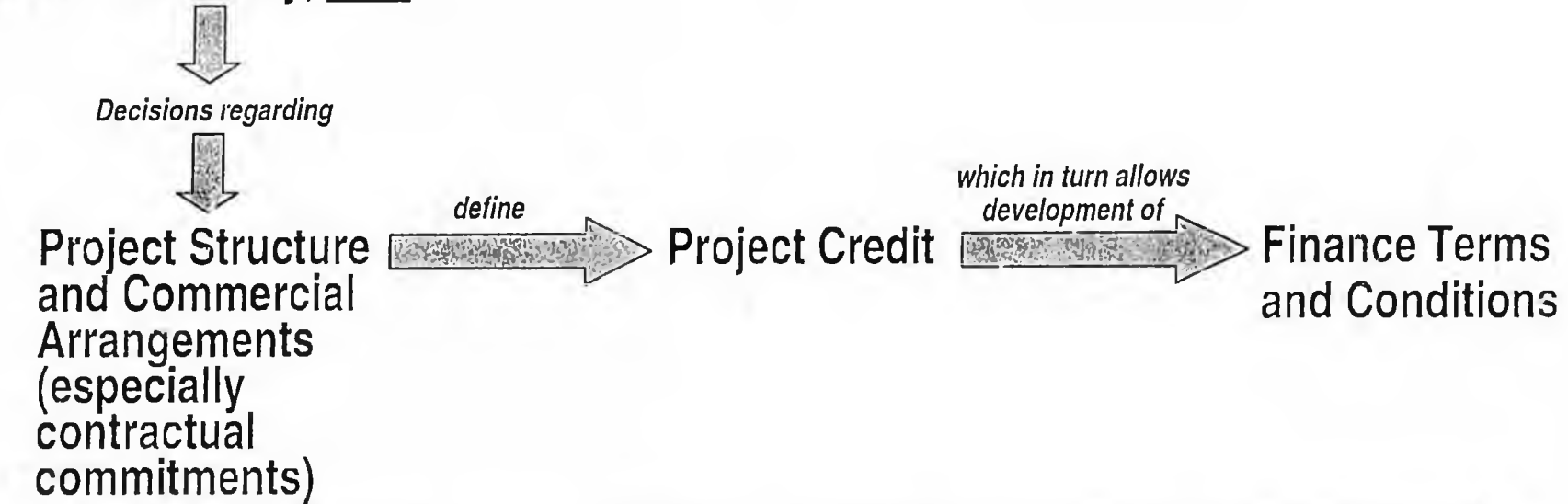
# The Project Finance Risk Matrix



# Risk Allocation Takes Place in a Three Step Process

## In A Properly Structured Project:

Reserves and Market  
Are Necessary, BUT



*The Federal guarantee legislation recognizes primacy of commercial decisions by providing that no credit supports shall be required other than those resulting from commercial requirements of project owners.*