



Evaluating and Acquiring Oil & Gas Companies

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McDep Associates

New England Energy Growth
Conference

Prout's Neck, Maine
September 25, 2000

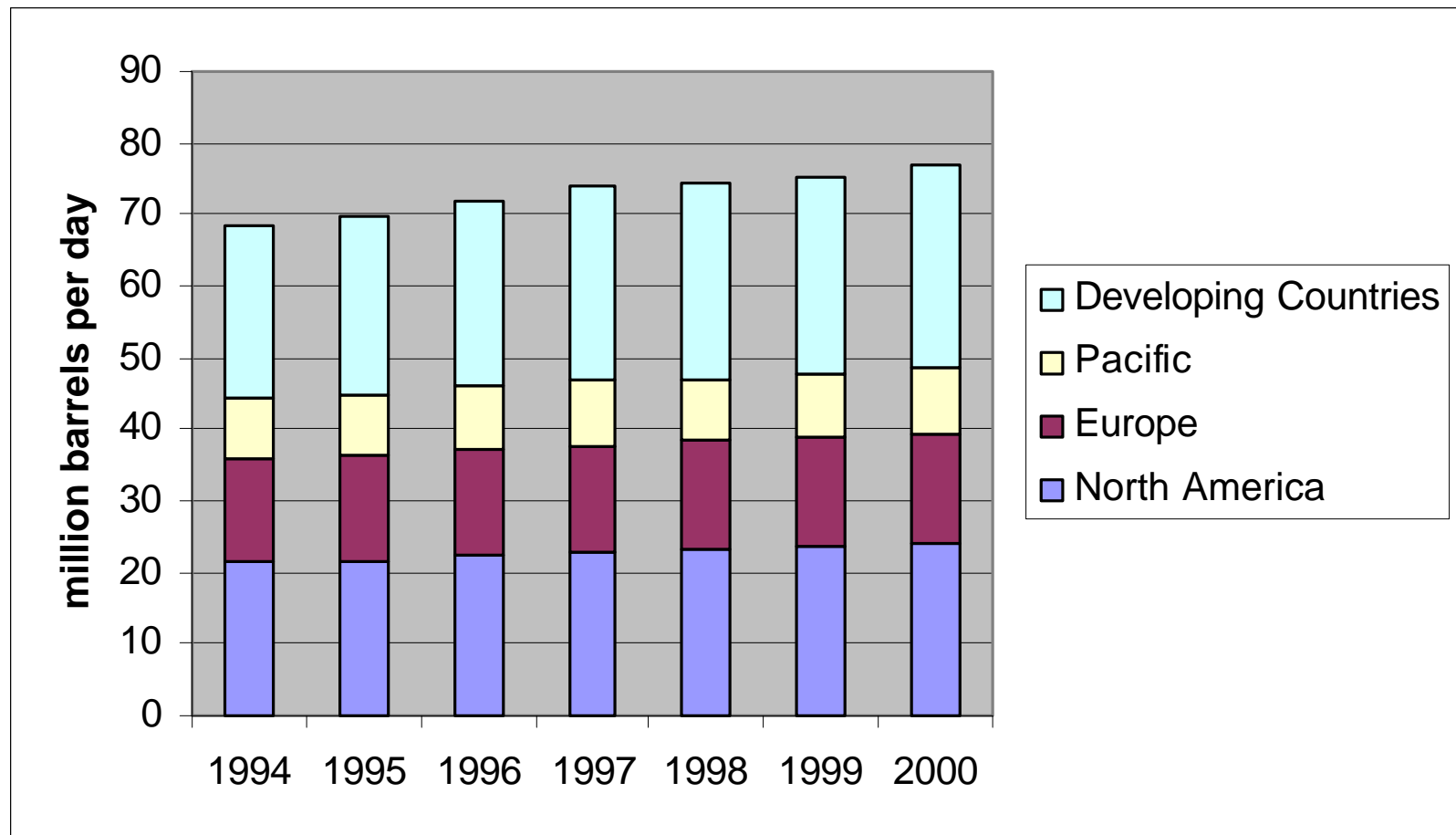


Summary and Conclusion

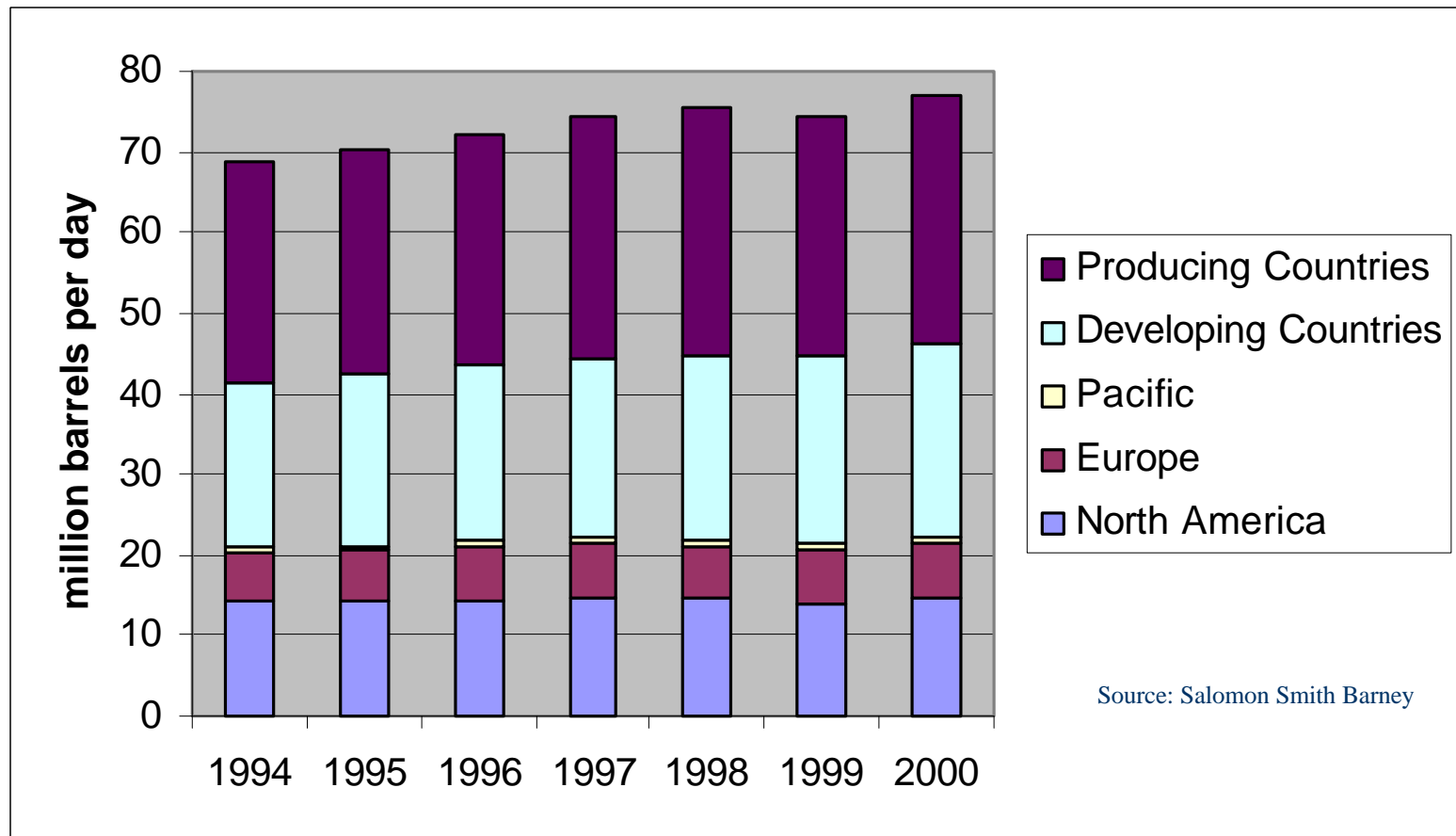


- ◆ Oil and gas commodity prices may be stronger and more volatile than commonly expected
- ◆ Petroleum cycle repeating
- ◆ Valuation increasingly sophisticated in the quantitative sense
- ◆ Smart people can still make dumb decisions
- ◆ Sound judgment invaluable

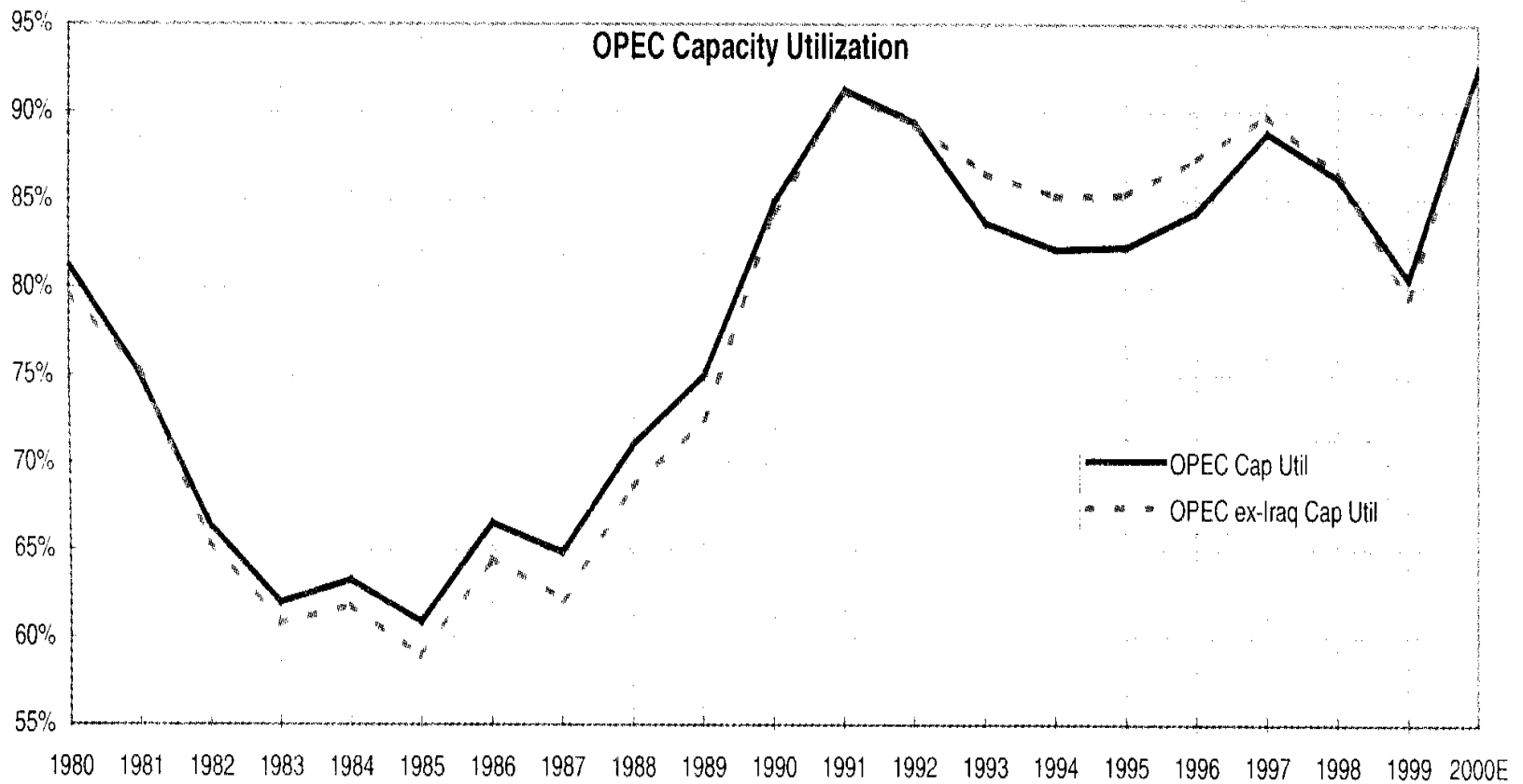
Oil Demand Grows



Oil Production Restrained

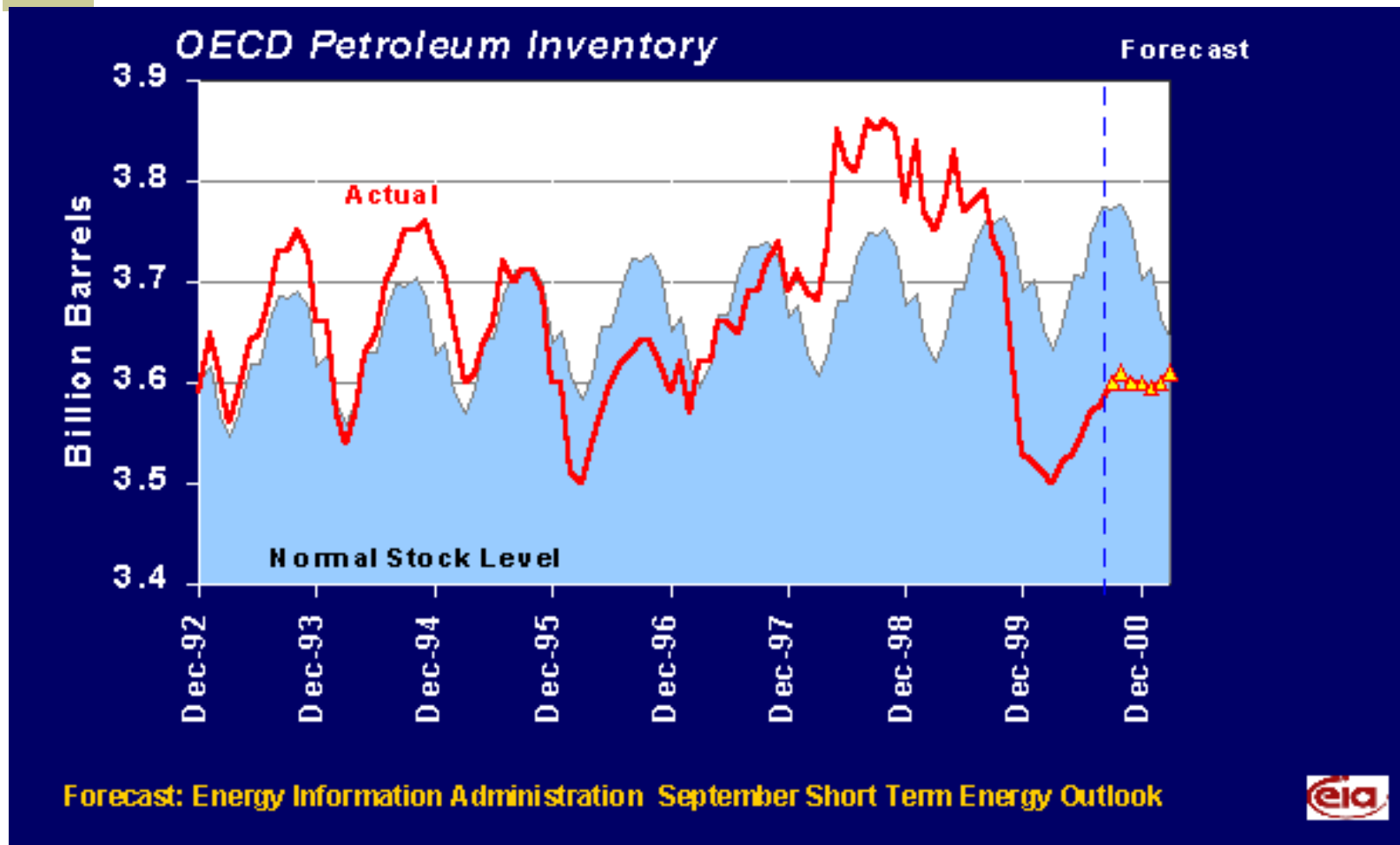


Spare Capacity Slim



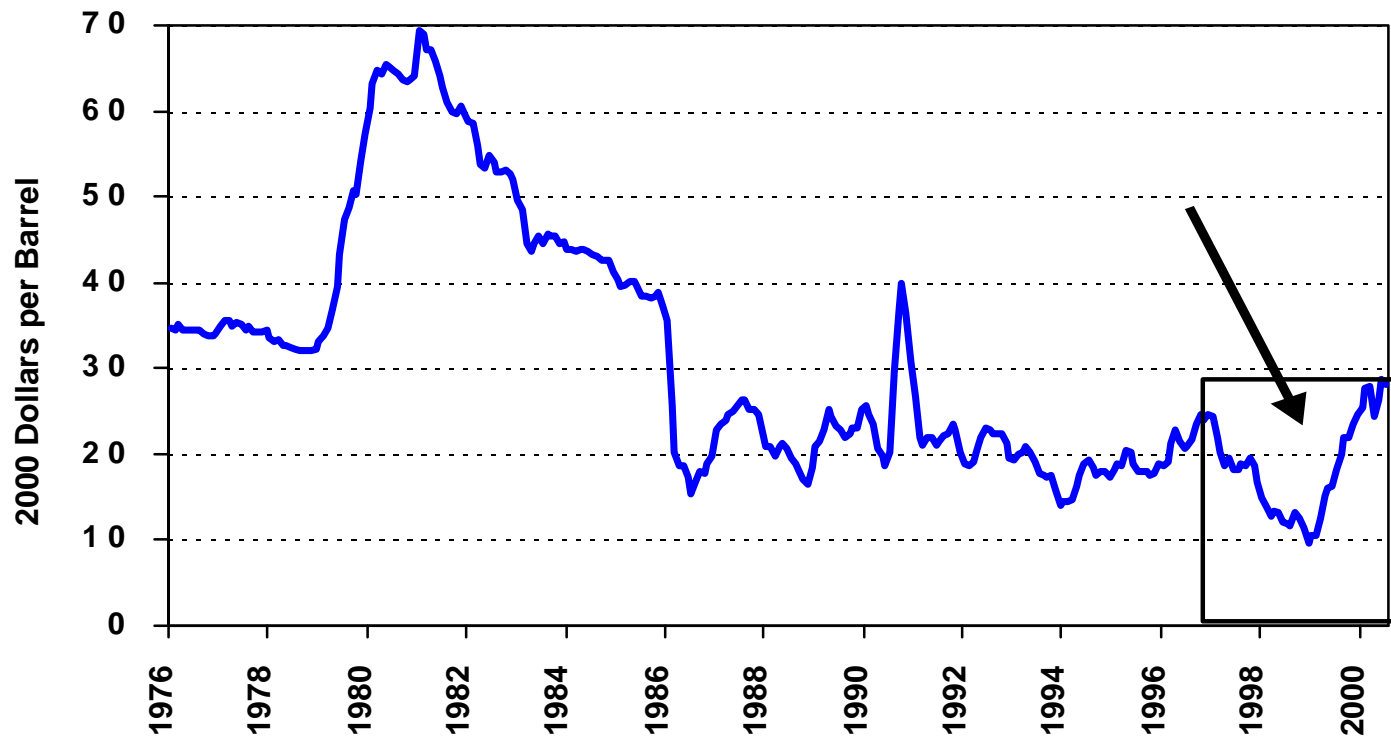
Source: Salomon Smith Barney

Oil Inventories Depleted



Oil Price Highest Since Last Crisis

Monthly World Oil Prices, 1976 - 2000



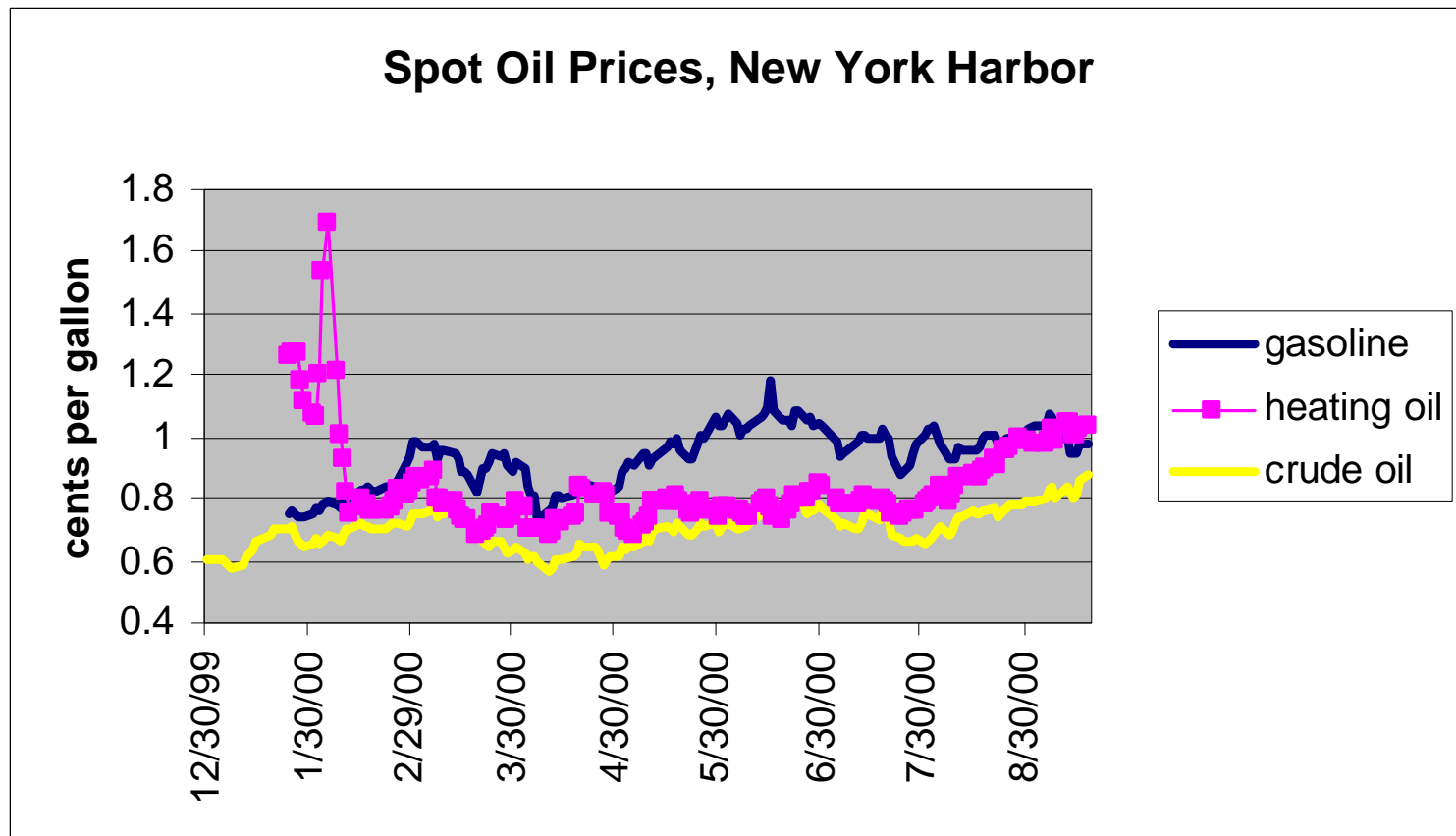
Sources: EIA, Short-Term Energy Outlook database, August 2000.

2004 Oil Only \$23

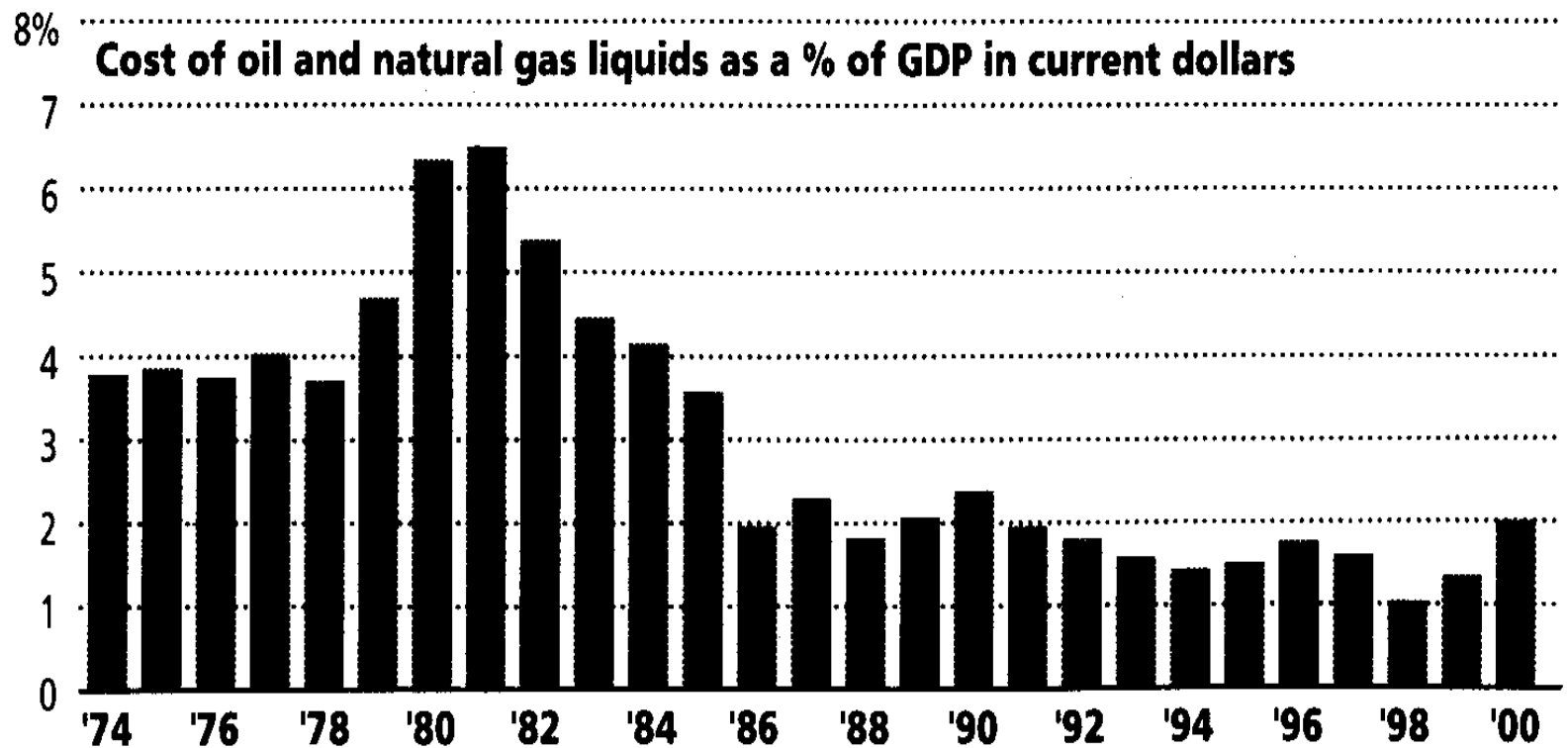
9/19/00 \$22.30 Crude Oil - Light Sweet DEC 2004 [NYMEX] (clz4)4 Years Log



Vulnerable to Shortages



Consumer Can Sustain Some Higher Price



Sources: Standard & Poor's; Department of Energy



KAL
The Baltimore Sun
Cartoonist and Writers Syndicate

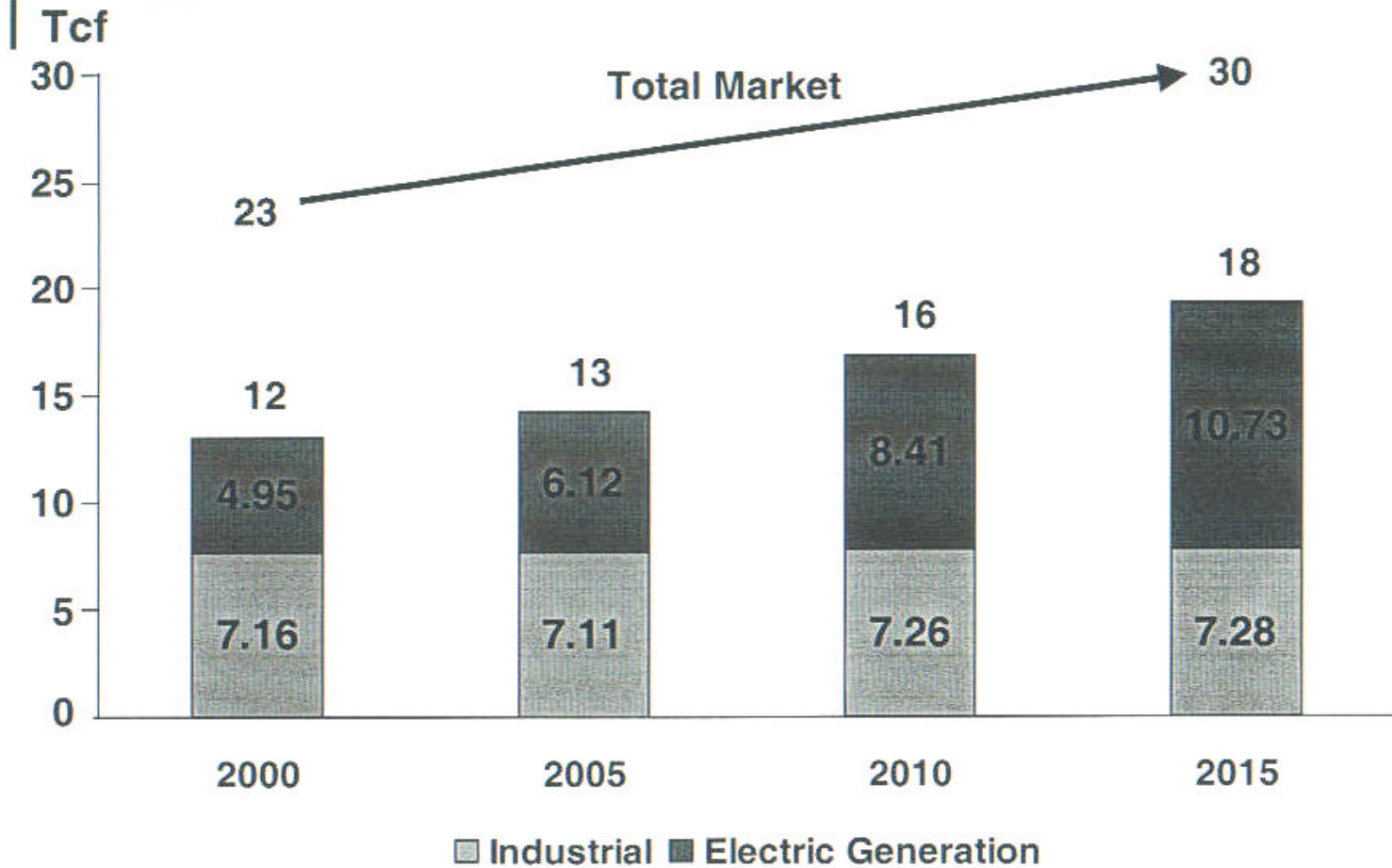


Natural Gas Demand Overcomes Weather

- ◆ New economy needs electricity
- ◆ Thermal efficiency breakthrough in electrical generation
- ◆ Power producers long electricity and short natural gas

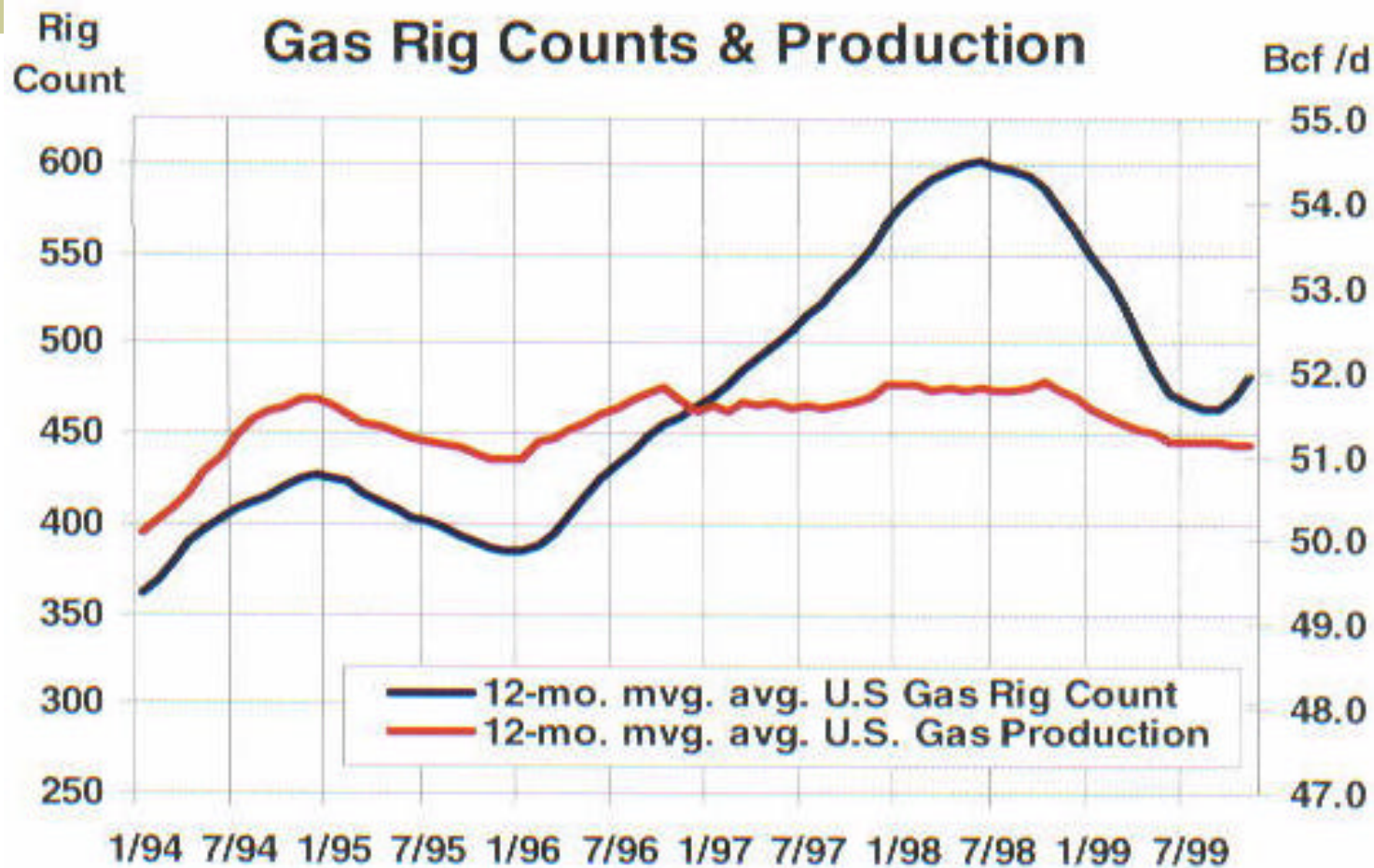
Electric Powers U.S. Natural Gas Demand

Projected Gas Consumption



Source: Internal estimates (El Paso Energy)

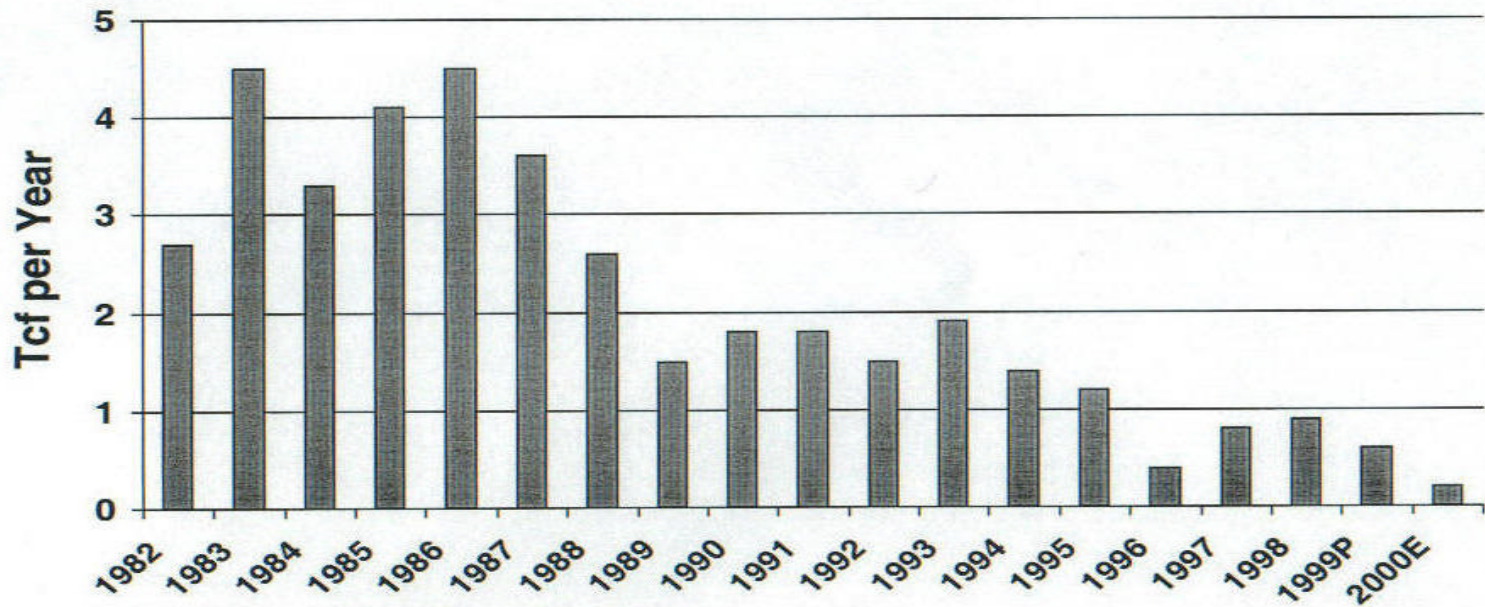
U.S. Natural Gas Production Stalls



Source: Baker Hughes/ EIA/ Industry Source

Natural Gas Spare Capacity Low

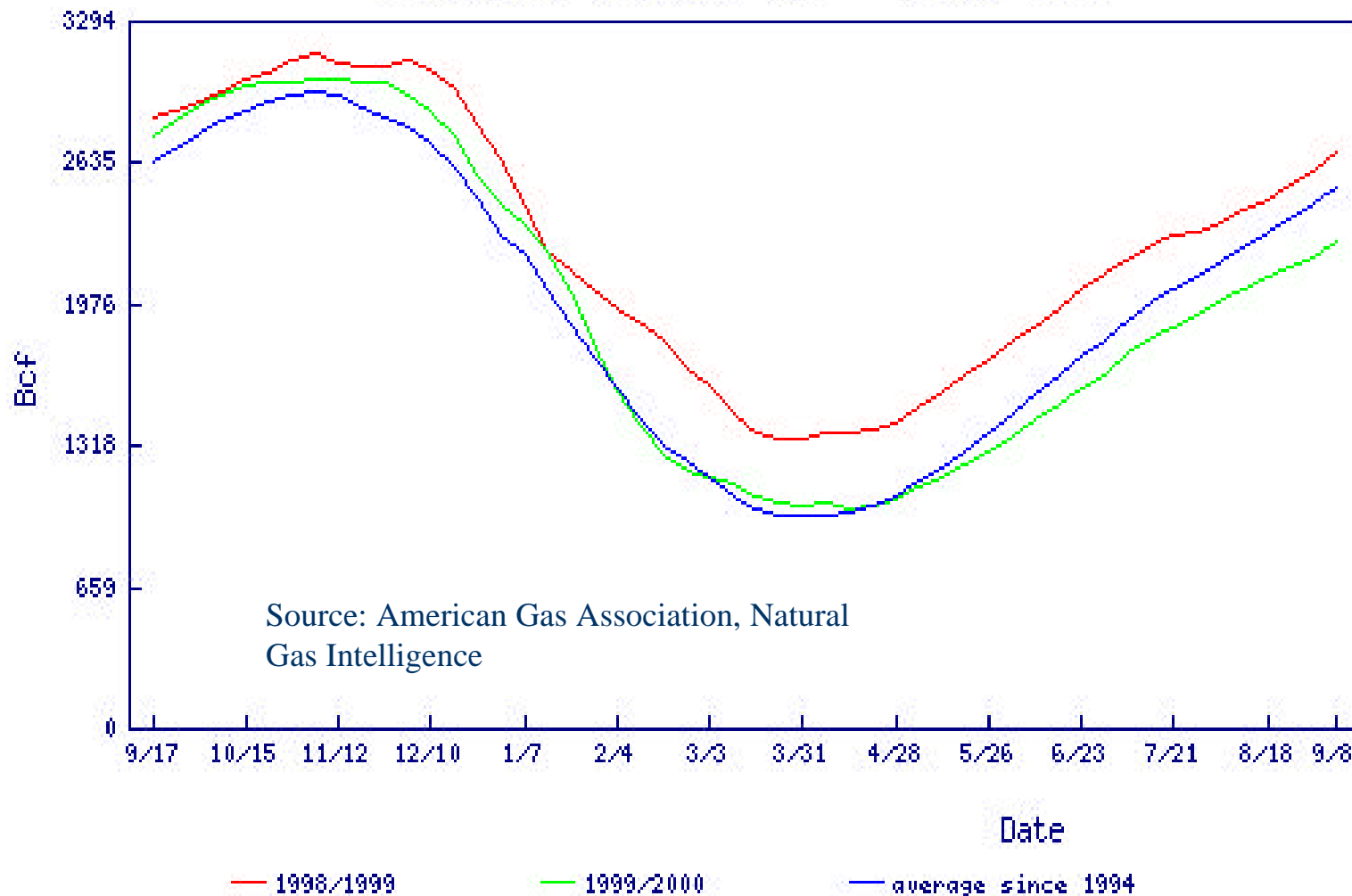
Excess Natural Gas Deliverability U. S. and Canada



Source: DLJ Research

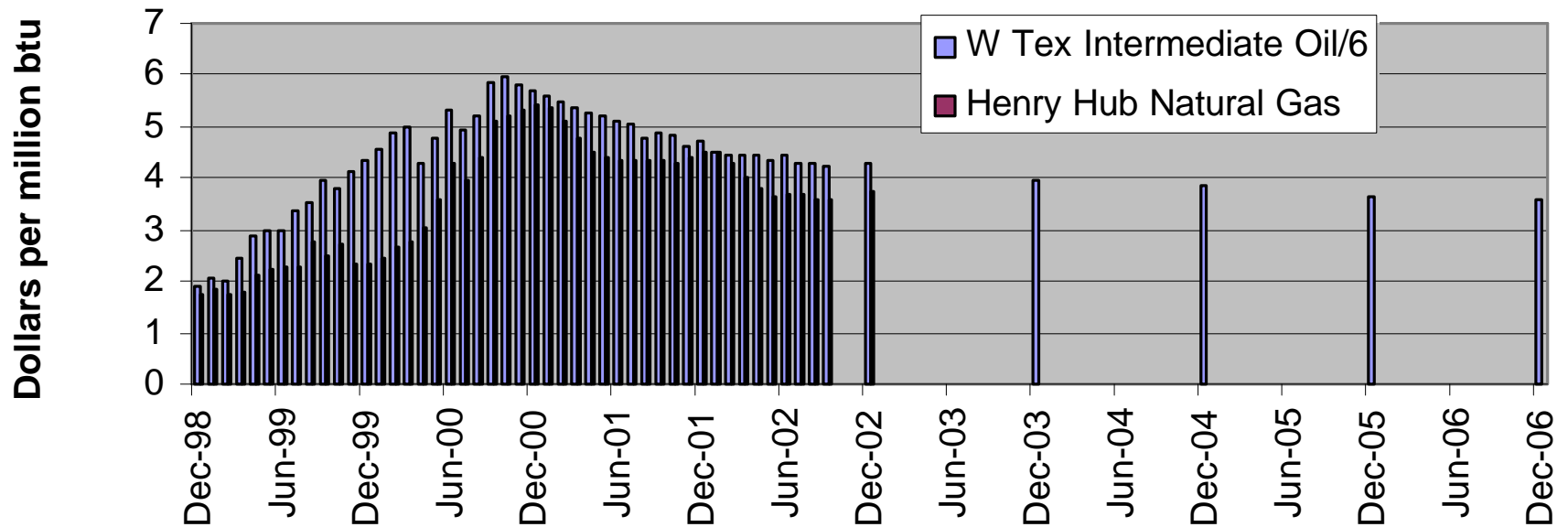
Natural Gas Inventories Low

Estimated Working Gas - Total U.S.



Natural Gas Price Bumping Oil Price Ceiling

New York Mercantile Exchange Futures, 9/15/00
Cash Historical





Consumer Can Sustain Some Higher Price

- ◆ Cleaner fuel
- ◆ Alternatives not competitive for electrical generation
 - Old plants can run on residual oil that costs \$0.80 per gallon or \$5.50 per million btu
 - New plants can run on distillate oil that costs \$1 per gallon or \$7 per million btu



Economic Conclusion



- ◆ Oil and gas price may be stronger than expected in the coming decade



Oil and Gas Through the Decades

- ◆ 1960s: Growth
- ◆ 1970s: Shortage
- ◆ 1980s: Balance
- ◆ 1990s: Growth
- ◆ 2000s:



1960s

- ◆ Energy demand strong
- ◆ Monetary inflation subdued
- ◆ Economic boom continues
- ◆ Integrated oil companies do well
- ◆ North American oil and gas producers depressed



1970s

- ◆ Shortages develop
- ◆ Oil producing countries assert control
- ◆ Inflation picks up
- ◆ North American producers soar in resource value and stock market value



DONALDSON, LUFKIN & JENRETTE, INC.

RESEARCH BULLETIN

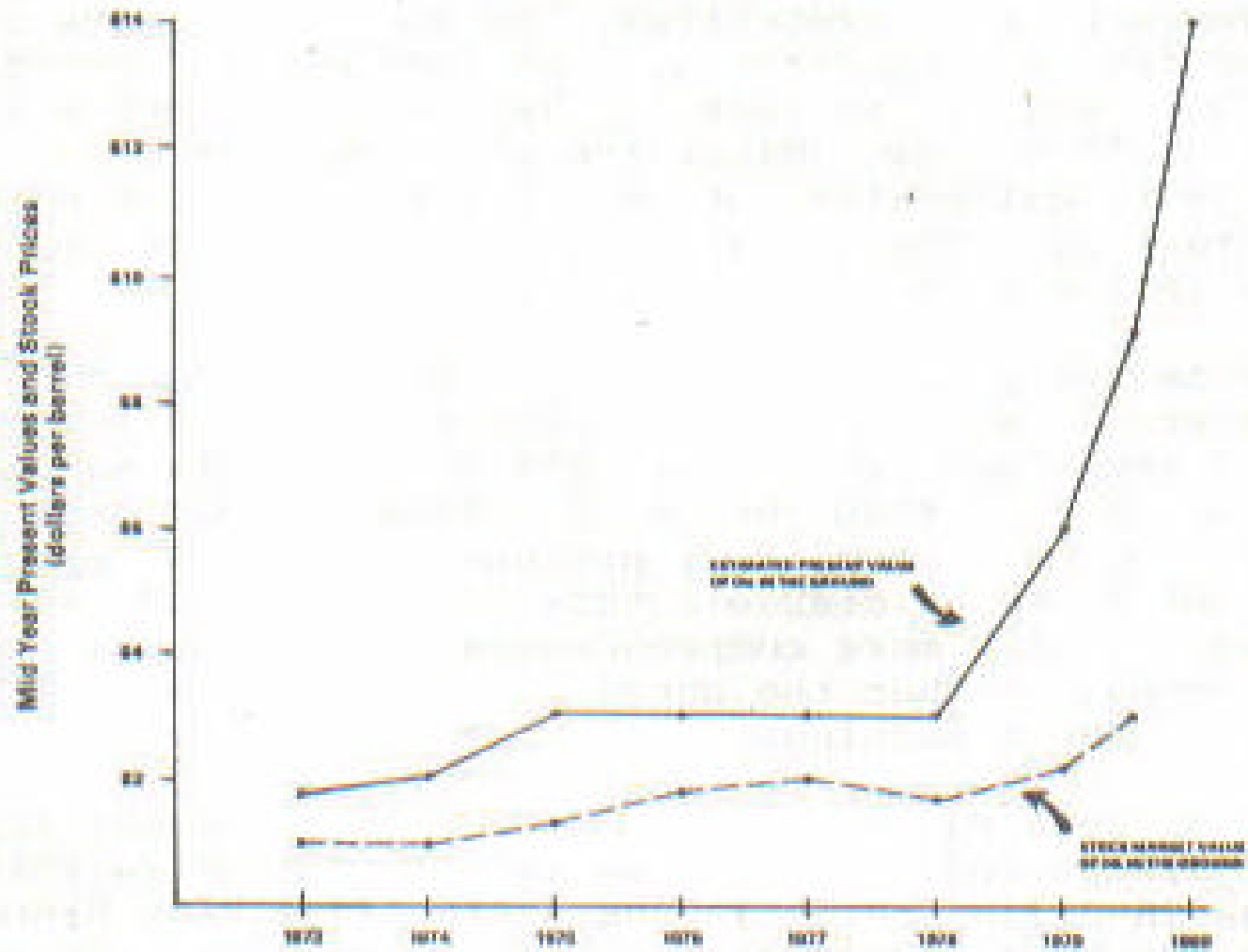
JANUARY, 1973

THE OIL AND GAS SHORTAGE IN 1973

Converging trends in natural gas and domestic refined oil product supply point to a year of accelerating investor interest in oil and gas companies. Widening appreciation of the natural gas shortage has already resulted in favorable progress on higher wellhead prices for new supply and improved regulation of interstate pipeline companies. Meanwhile, as evidence of a developing refined product shortage mounts, the business environment for petroleum refiners will also improve. For example, we expect relaxation of price controls on refined products and progress toward resolution of policy issues regarding oil imports and ecological constraints. The more favorable climate for both natural gas and refined oil products will be reflected in earnings per share growth and, most importantly, in further improved valuation of oil and gas companies relative to the general market. To fully reflect this appreciation potential, we believe that natural gas and oil related investments should represent an above average weighting in portfolios, e.g., 20-25% of total value.

UNPRECEDENTED UNDERVALUATION

Figure 1
U.S. Oil and Gas Production/Refining Companies
Present Values and Stock Prices



Source: EIA



1980s

- ◆ Demand/supply balance restored
- ◆ Inflation subsides
- ◆ Bull market resumes for stocks
- ◆ Integrated oil companies meet takeover pressure
- ◆ Overly aggressive independent producers suffer

Donaldson, Lufkin & Jenrette

Donaldson, Lufkin & Jenrette Securities Corporation 140 Broadway, New York, N.Y. 10005 (212) 943-0300

OIL & GAS

VALUATION

A MONTHLY ANALYSIS

KURT H. WULFF
PHILIP L. DODGE

AUG 3 1981

RESTRUCTURING

SUMMARY

Just three months ago, it was business as usual at Conoco. Since then the company has undergone a partial restructuring with the sale of its Canadian affiliate, and it is a near certainty that the structure of the remaining company will soon be altered substantially. A low ratio of stock price to the amount for which properties could be sold separately implies the possibility of major changes in structure for all of the integrated companies. Investor disenchantment with integrated companies appears to stem from two factors. First, integration combines businesses

Donaldson, Lufkin & Jenrette

Donaldson, Lufkin & Jenrette Securities Corporation 140 Broadway, New York, N.Y. 10005 (212) 902-2000

OIL & GAS

VALUATION

A MONTHLY ANALYSIS

KURT H. WULFF
PHILIP L. DODGE
JEFFREY R. FREEDMAN
KATHERINE R. HENSEL

August 2, 1982

THE EDGE OF PANIC

Summary and Recommendation

A bank failure in Oklahoma, a couple of medium-sized bankruptcies, and a strong fear among traders and arbitrageurs that Gulf will renege on its purchase of Cities Service all contributed to steep stock-price declines as energy companies led the market down during the past month. Historically, at critical stages in the market, a rash of unfavorable developments can set the stage for a climax and sharp rebound. In the face of this, the shares of strong companies along with those of weak companies have fallen sharply. Moderately strong companies being under more pressure may rebound more rapidly, and some weak companies might not rebound.

**HOW TO
PROFIT
FROM THE
COMING
OIL CRISIS**



KURT WULFF
WITH BILL BRUNS

Book Published
March 1988

Saddam Hussein
Invaded Kuwait
August 1990



1960s 1990s

- ◆ Energy demand strong
- ◆ Monetary inflation subdued
- ◆ Economic boom continues
- ◆ Integrated oil companies do well
- ◆ North American oil and gas producers depressed



~~1970s~~ 2000s?

- ◆ Shortages develop
- ◆ Oil producing countries assert control
- ◆ Inflation picks up
- ◆ North American producers soar in resource value and stock market value



What Is Different?

- ◆ The world is at relative peace
- ◆ Better government
- ◆ The Second Industrial Revolution is here
- ◆ Resource base more exploited

Valuation Today – Cash Flow

- ◆ Enterprise Value divided by next four quarters earnings before interest, tax, etc.

	<i>Wellhead</i>					
	<i>Price</i>	<i>Margin</i>	<i>Volume</i>	<i>Ebitda</i>	<i>EV/</i>	
	<i>(\$/mcf)</i>	<i>(%)</i>	<i>(\$/mcf)</i>	<i>(bcf)</i>	<i>(\$mm)</i>	<i>Ebitda</i>
Dorchester Hugoton, Ltd.	4.55	76	3.43	6.5	22.2	7.2
Hugoton RT (42.5%)	4.37	75	3.29	29.6	97.4	5.5
Cross Timbers Royalty Trust	4.76	75	3.58	5.0	17.8	5.1
San Juan Basin Royalty Trust	4.11	81	3.34	32.2	107.6	4.5
Burlington Resources	3.77	76	2.86	901	2,574	4.5

Source: www.mcdep.com

Valuation Today – Reserves

- ◆ Present value of future cash flow

Basic (bcf)	Volume Enhanced (bcf)	Total (bcf)	Price (\$/mcf)	Cap Ex (\$mm)	Cash Flow (\$mm)	Present Value (\$mm)
7983	11025	19009	3.87	17241	35216	15100

Valuation Today - Debt Adjustment

◆ Market Cap and Debt to Present Value (McDep)

		<i>Price</i> <i>(\$/sh)</i>		<i>Market</i> <i>Cap</i>	<i>Debt</i>	<i>Net</i> <i>Present</i> <i>Value</i>	<i>McDep</i> <i>Ratio</i>
	<i>Symbol</i>	<i>8-Sep</i> <i>2000</i>	<i>Shares</i> <i>(mm)</i>	<i>(\$mm)</i>	<i>(\$mm)</i>	<i>(\$/sh)</i>	
Dorchester Hugoton, Ltd.	DHULZ	14.81	10.7	159	-	15.40	0.96
Hugoton RT (42.5%)	HGT	13.38	17.0	227	-	15.90	0.84
Cross Timbers Royalty Trust	CRT	15.25	6.0	92	-	19.20	0.79
Burlington Resources	BR	39.50	216	8,500	3,200	55.10	0.77
San Juan Basin Royalty Trust	SJT	10.50	46.6	489	-	14.40	0.73

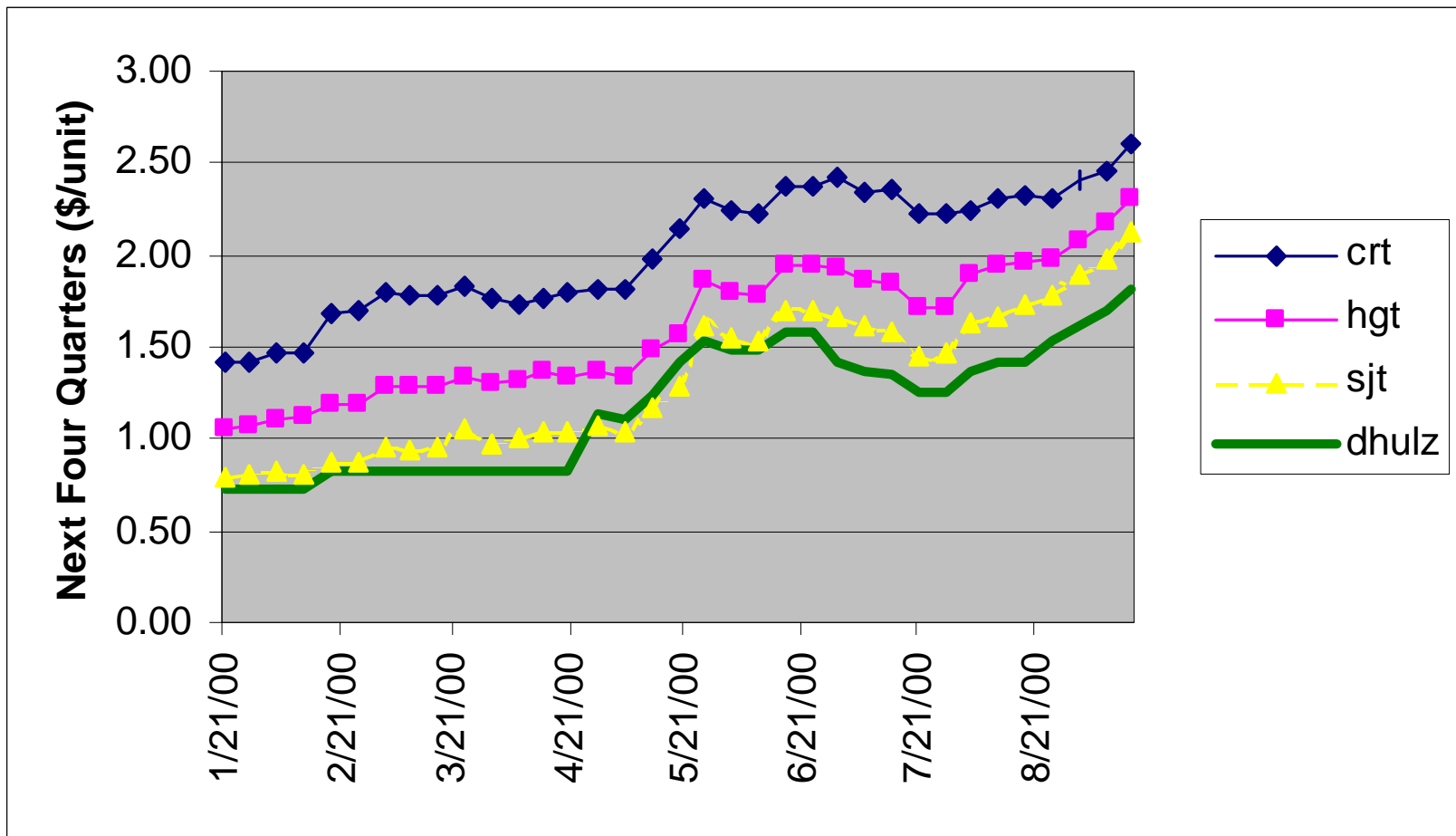
Source: www.mcdep.com



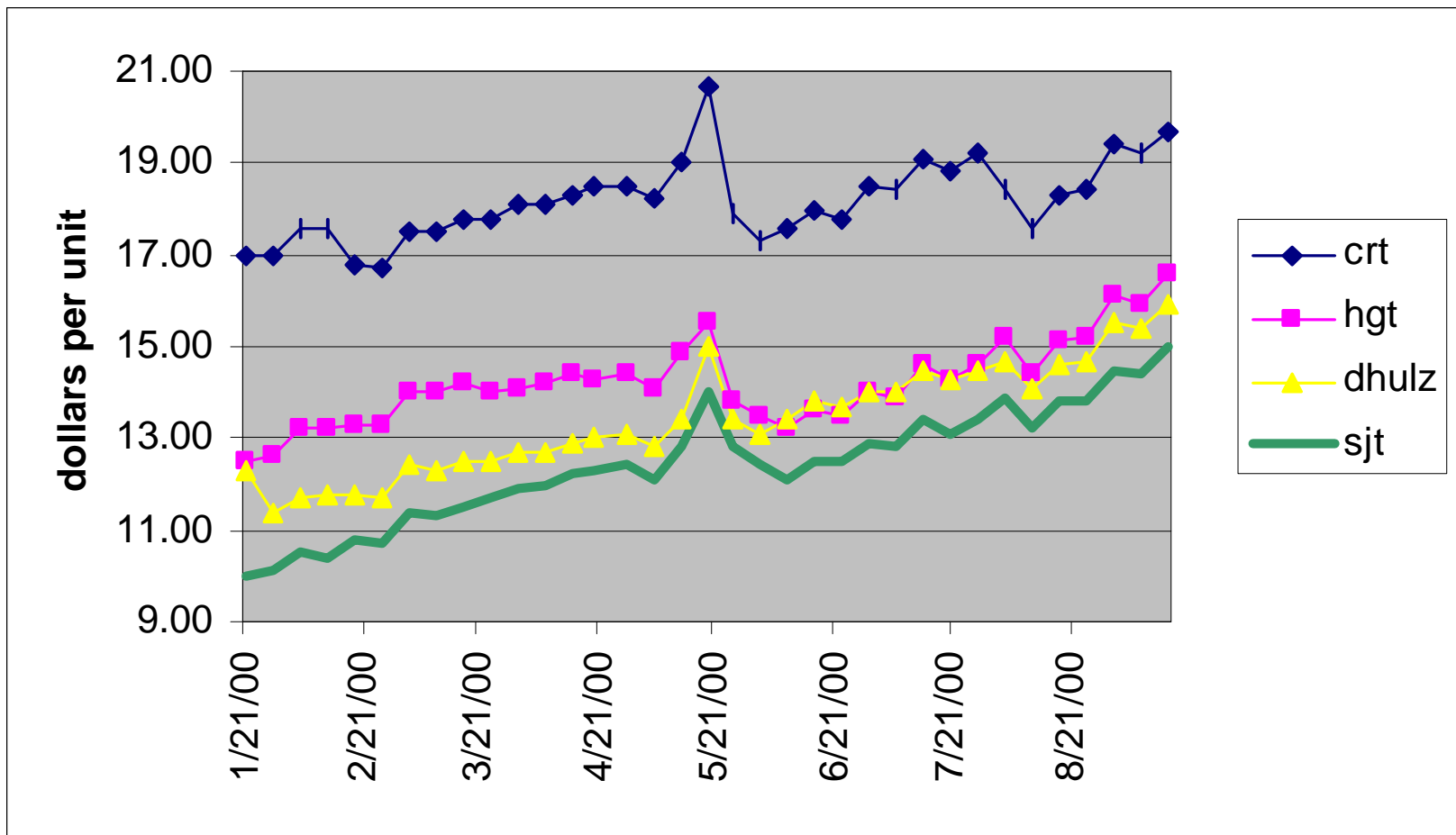
Valuation Today - Frequent Updates

- ◆ Interest and inflation rate
- ◆ Commodity price
- ◆ Volumes
- ◆ Costs
- ◆ Stock prices

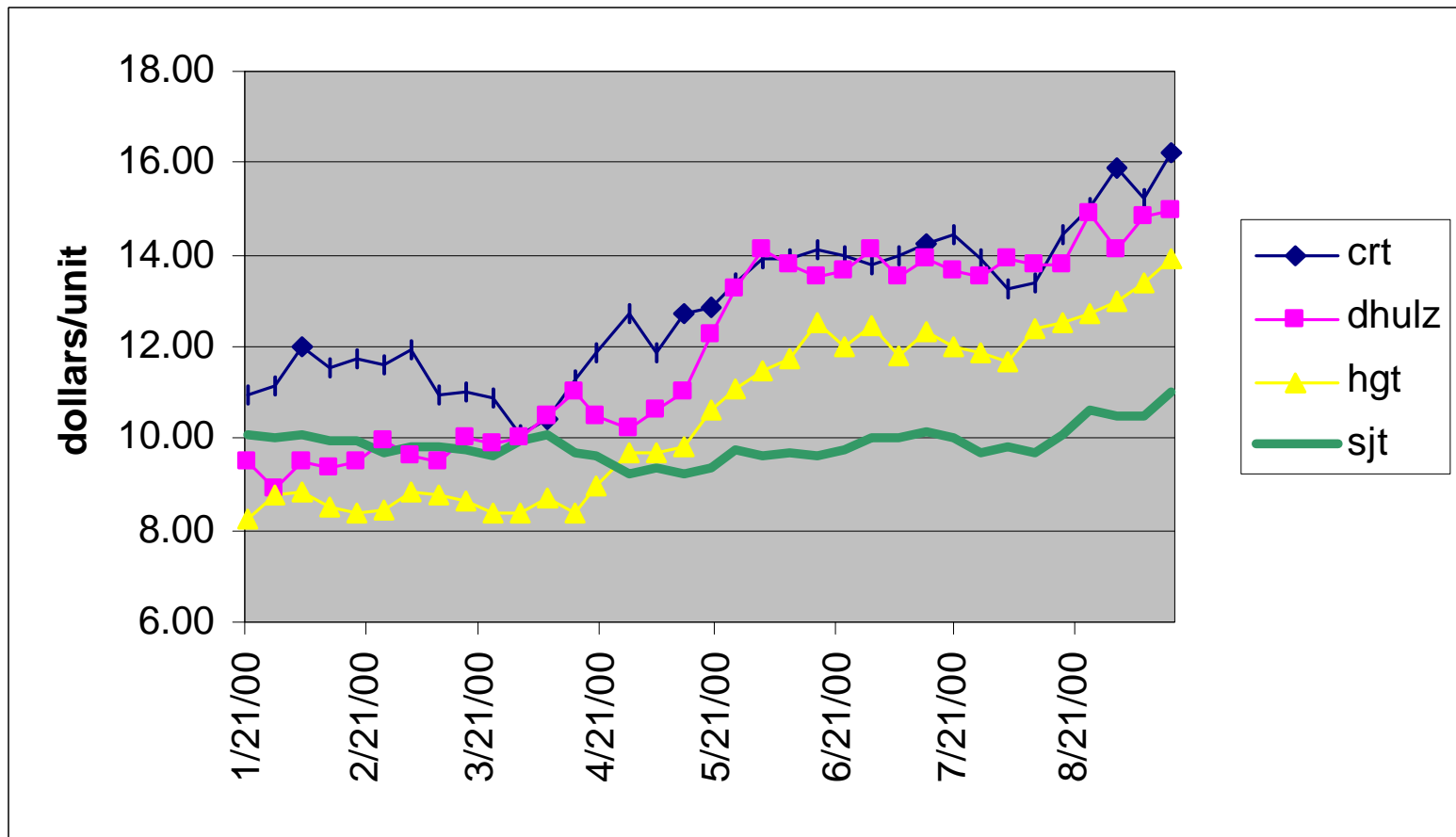
Valuation Trends – Projected Distribution



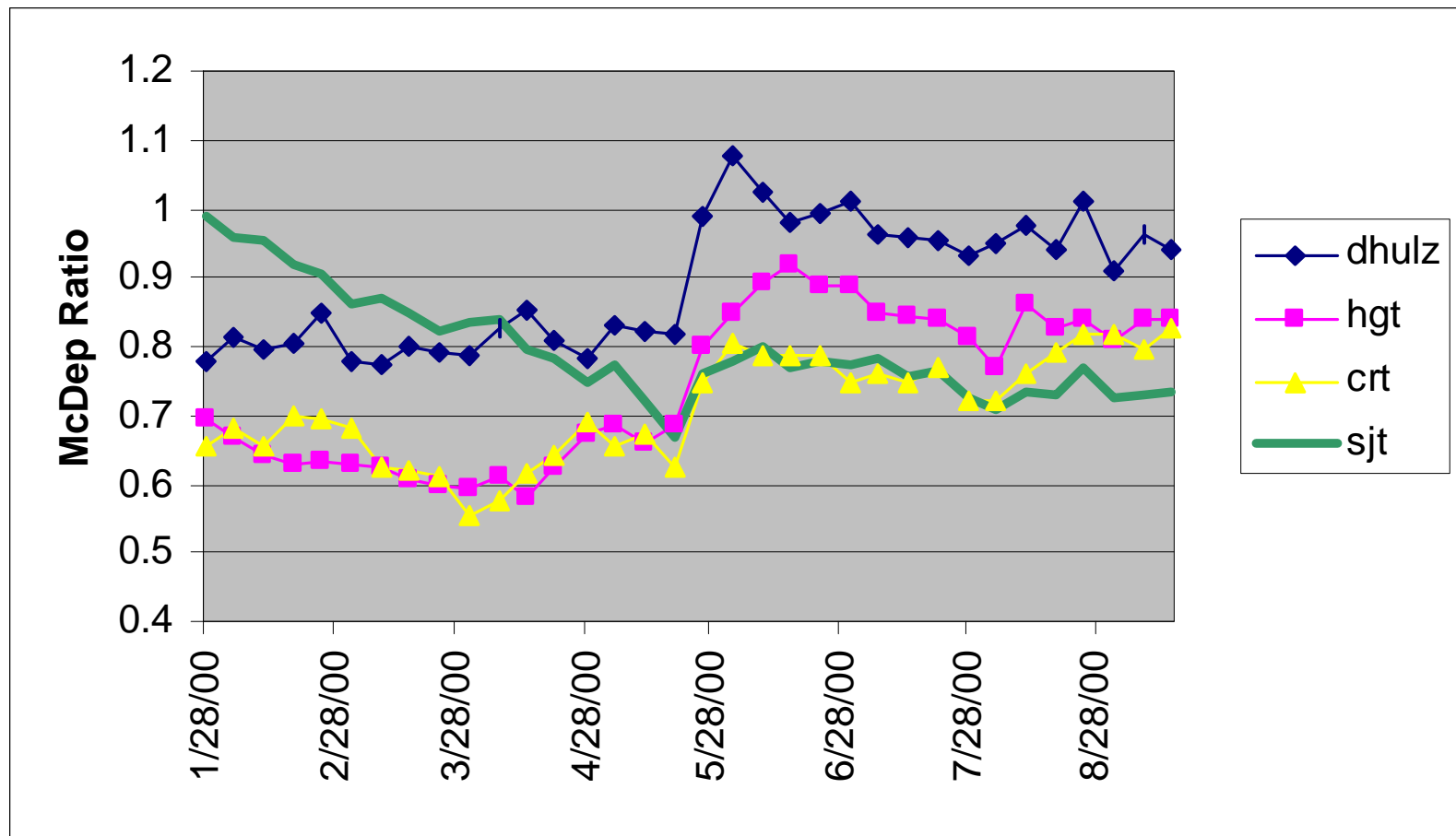
Valuation Trends – Present Value



Valuation Trends – Stock Price



Valuation Trends – McDep Ratio

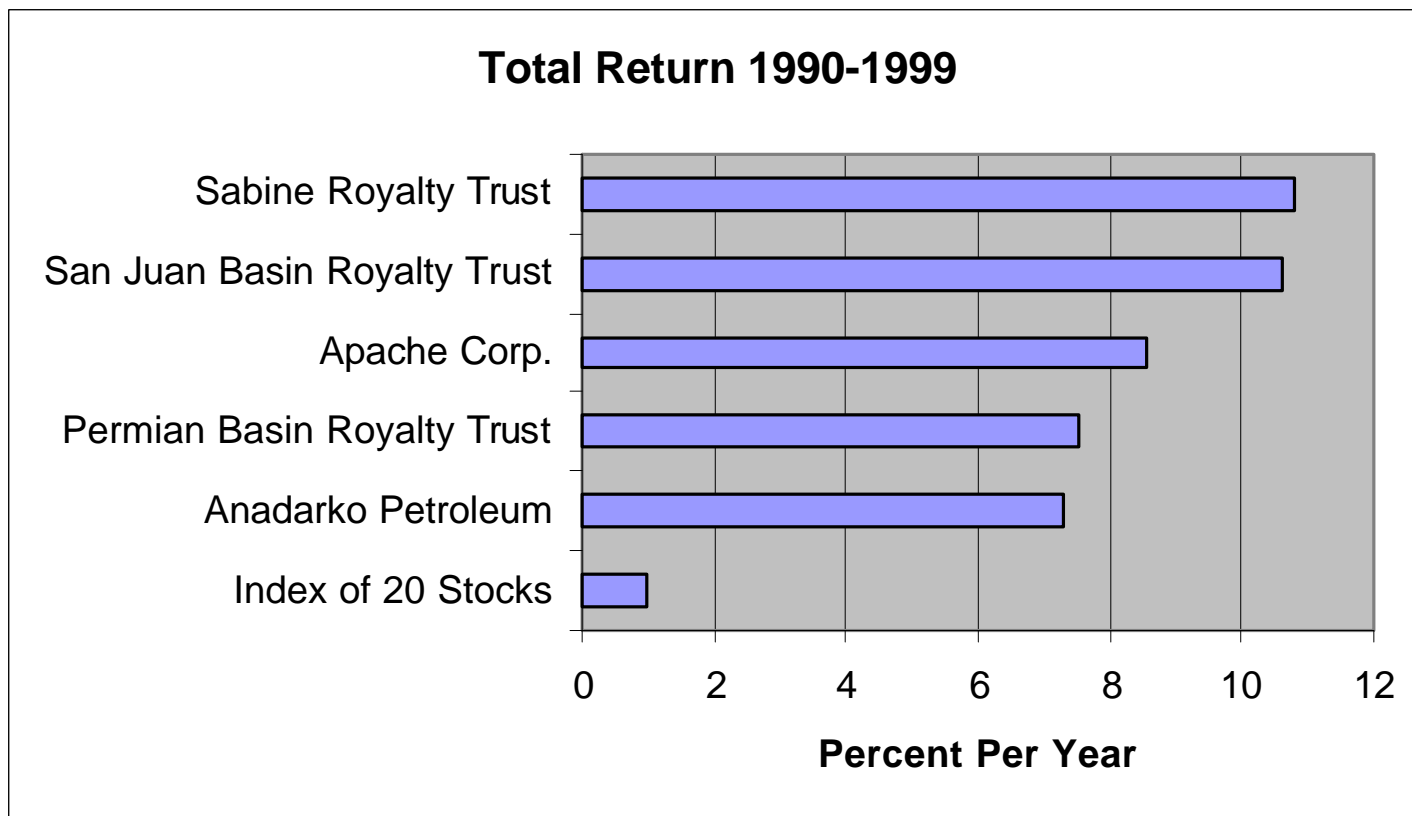




Valuation Today – Qualitative Factors

- ◆ Assets
- ◆ Management
 - Long-Term Credibility
 - Commitment

Some Assets Beat Management in U.S. Independent Oil & Gas





Long-term Credibility

- ◆ Some have it
 - Apache
 - Anadarko
 - Devon
- ◆ Some don't
 - Pennzoil
 - Union Pacific Resources
 - Burlington Resources



Commitment

- ◆ Annoying moments in the life of an investor
 - Hear management tell how great their company is at a high stock price
 - Then at a later time hear the same management say what a good deal it is to sell company at a lower stock price
- ◆ Non-performers buy high, sell low



Who Has Not Performed: Pennzoil

- ◆ Refused \$84 a share offered by Union Pacific Resources in 1998.
- ◆ Spun off PennzEnergy in 1999.
- ◆ Two pieces priced under \$10 each in the stock market at low point.
- ◆ Sold PennzEnergy to Devon Energy in 2000 for stock now worth about \$25.



Who Has Not Performed: Union Pacific Resources

- ◆ Choice Land Grant assets spun off from Union Pacific Railroad in 1997 at about \$25 a share.
- ◆ Spurned by Pennzoil, bought Norcen Energy for cash in 1998.
- ◆ High financial leverage drove stock to single digits in 1999.
- ◆ Sold to Anadarko in 2000 for stock now worth about \$23.

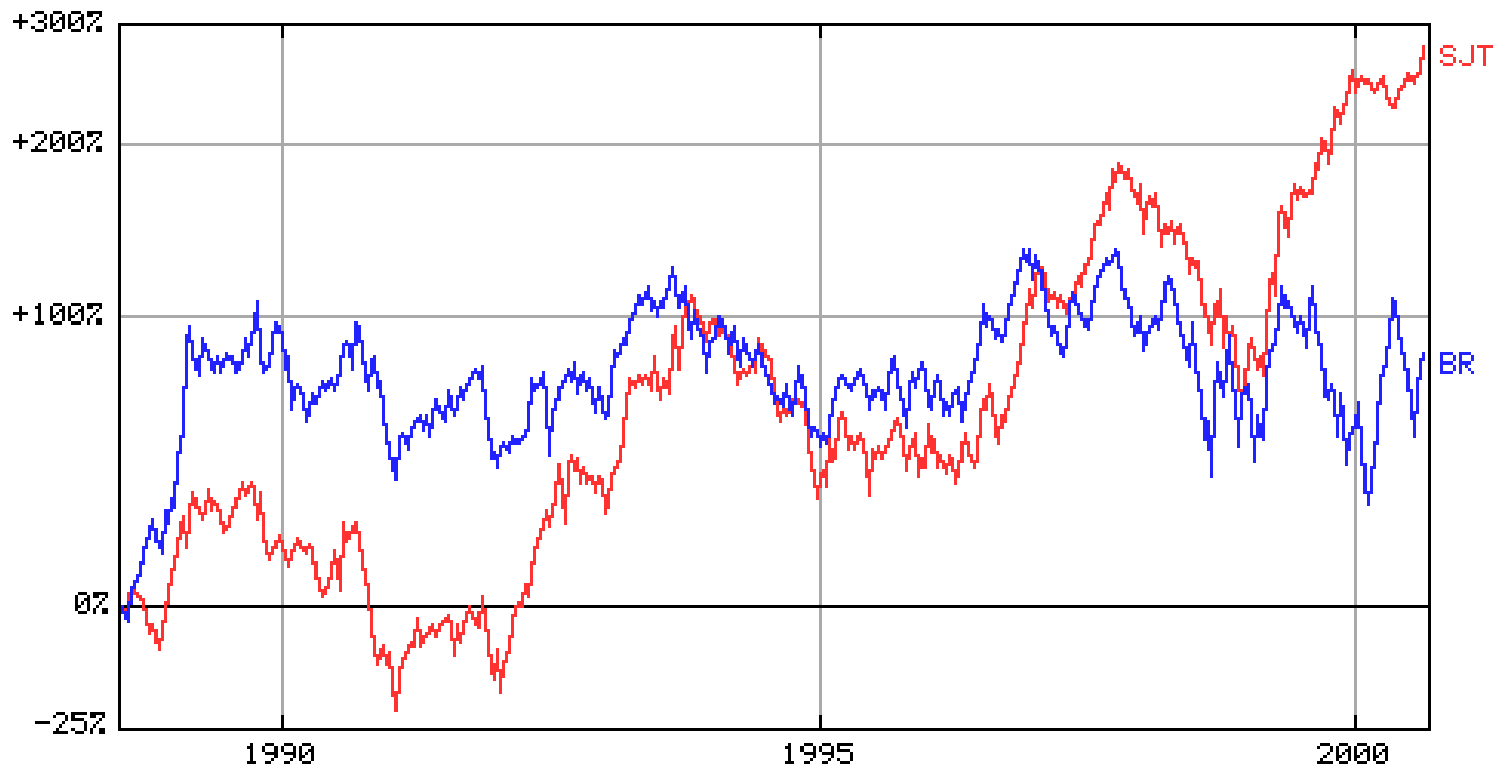


Who Has Not Performed: Burlington Resources

- ◆ Same producing properties as San Juan Basin Royalty Trust.
- ◆ Diversified to Gulf of Mexico without success.
- ◆ Acquired Louisiana Land; diluted stock.
- ◆ Acquired Poco; Canadians dumped BR stock.
- ◆ Sold half of 2000 gas in 1999 at low price.

Burlington Resources (BR)/ San Juan Basin RT (SJT)

Burlington Resources



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Recap

- ◆ Current demand/supply balance tight
- ◆ Oil and gas faces several years of better returns similar to the 1970s
- ◆ There will still be volatility
- ◆ Some management have credibility while others destroy value
- ◆ Skillful valuation enhances performance