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U.S. Energy Industry Financial Developments 1995 First Quarter

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U.S. Energy Industry Financial Developments, 1995 First Quarter was prepared under the direction of W. Calvin Kilgore, Director of the Office of Energy Markets and End Use of the Energy Information Administration. General questions concerning the content of this report may be referred to Mark E. Rodekohr, Director of the Energy Markets and Contingency Information Division, (202) 586-1130, and Mary E. Northup, Chief of the Financial Analysis Branch, (202) 586-1445. For specific technical information concerning this report, contact Kevin Lillis, (202) 586-1395, or Susanne Johnson, (202) 586-4795.

Attention Readers

This quarterly publication, *U.S. Energy Industry Financial Developments*, is being eliminated as of the June 1995 release of the 1995 first quarter report. The data tables and graphics, along with a short executive summary, will be available for future quarters as an electronic product on the Energy Information Administration (EIA) home page via the internet at <http://www.eia.doe.gov>. Also, highlights of the *U.S. Energy Industry Financial Developments* will be printed on a quarterly basis in the *EIA Short-Term Energy Outlook*. For specific technical information concerning the quarterly energy industry financial developments, contact Kevin Lillis, (202) 586-1395, or Susanne Johnson, (202) 586-4795.

Contents

Executive Summary	v
1. Introduction	1
2. Financial and Energy Overview	3
3. Fossil Fuel Industries	7
Oil and Gas Production	7
Refining/Marketing Operations	7
Chemical Operations	8
Oil Field Companies	16
Coal Producers	17
5. Rate-Regulated Energy Industries	19
Natural Gas	19
Electric Utilities	19
Appendix	21

Tables

1. Preliminary Energy Statistics	4
2. Revenue and Income Summaries	6
3. Income and Expenditures for Major Petroleum Companies	12
4. U.S. Coal Industry, Income and Production Summary	17
5. U.S. Electric Utility Revenue and Income by Region	20

Figures

1. Year-over-Year Percent Change in Real Gross Domestic Product by Quarters, 1991-1995	5
2. Quarterly Return on Equity for Energy and Nonenergy Companies, 1982-1995	9
3. Gross U.S. Refining Margin by Quarter, 1982-1995	11
4. Majors versus Independents U.S. Exploration and Development Expenditures, 1981-1995	14
5. Rotary Rigs in Operation by Month, 1992-1995	15
6. Foreign versus U.S. Exploration and Development Expenditures, 1981-1995	15
7. Foreign versus U.S. Upstream Rates of Return, 1981-1994	16

Executive Summary

Based on information provided in 1995 first-quarter financial disclosures, net income for 151 petroleum companies--including 19 majors--rose 10 percent between the first quarter of 1994 and the first quarter of 1995. The improved performance of the major petroleum companies' chemical operations accounted for most of this increase in earnings.

For the first quarter of 1995, the financial performance of petroleum operations was mixed. A \$3.75 per barrel increase in crude oil prices worked to boost the majors' upstream (oil and gas production) earnings. However, lower domestic oil production, sharply lower natural gas prices, and a 3-percent decline in natural gas consumption were offsetting factors. The decline in natural gas consumption was largely due to exceptionally mild winter temperatures during the first three months of 1995. The financial performance of independent oil and gas producers deteriorated in the first quarter as these companies tend to be more reliant on natural gas production as a source of earnings.

In contrast to upstream operations, the downstream (refining, marketing, and transport) financial performance of both the major petroleum companies and the independent refiners was uniformly worse than in the year-ago quarter. Both the major and independent refiners were unable to fully recoup the increase in crude oil input costs through higher refined product prices. Further, a mild winter led to reduced home heating oil sales and a reduction in total refined product demand. Some companies, particularly those with major retail networks in the New England and Middle-Atlantic regions, reported that unforeseen complications arising from the introduction of reformulated gasoline (RFG) also had a negative impact on earnings.

For the first quarter of 1995, petroleum companies continued to report that earlier cost cutting efforts and industry consolidation reduced operating costs and positively affected bottom-line results.

The following points highlight 1995 first-quarter energy industry financial developments:

- **Worldwide Chemical Industry Recovery Benefits Majors' Earnings.** Due to an increase in chemical demand and prices, earnings from the majors' chemical operations almost tripled between the first quarter of 1994 and the first quarter of 1995. This was the sixth consecutive quarterly improvement for the majors' chemical operations following several quarters of declining earnings.
- **Upstream Earnings Mixed.** A substantial rise in crude oil prices led to sharply higher upstream earnings for the major petroleum companies despite reduced demand for natural gas, lower natural gas prices, and falling domestic crude oil production. The majors reported a 21-percent increase in earnings from their domestic oil and gas production operations and 26-percent growth in their overseas upstream earnings. However, independent oil and gas producers reported a 59-percent decrease in income.
- **Squeezed Margins and Reduced Demand Lower Downstream Earnings.** As a consequence of reduced margins and product demand, the financial performance of downstream petroleum operations deteriorated substantially. Income from the majors' domestic downstream operations was down 97 percent, while U.S. independent refiners reported a \$6 million loss versus net income of \$221 million in the first quarter of 1994. For their overseas refining/marketing operations, the majors reported a 32-percent drop in first-quarter earnings as refined product margins were also lower in both Europe and in Asia.

1. Introduction

This report traces key developments in U.S. energy companies' financial performance for the first quarter of 1995. Financial data (only available for publicly-traded U.S. companies) are included in two broad groups--fossil fuel production and rate-regulated utilities. All financial data are taken from public sources such as corporate reports and press releases, energy trade publications, and *The Wall Street Journal's* Earnings Digest. Return on equity is calculated from data available from Standard and Poor's Compustat data service. Since several major petroleum companies disclose their income by lines of business and geographic area, these data are also presented in this report. Although the disaggregated income concept varies by company and is not strictly comparable to corporate income, relative movements in income by lines of business and geographic area are summarized as useful indicators of short-term changes in the underlying profitability of these operations.¹

Each company is assigned to a particular functional activity based on segment revenue. Companies in each industry grouping include only the publicly-traded companies whose financial data were available in time for publication. As a result, the number of companies included in this report varies slightly from quarter to quarter due to the variability in company reporting dates and to the periodic entry and exit of companies into and out of particular industries. To demonstrate the degree to which these industry groupings represent shares of industry activity, shares for the domestic industry segments were calculated for the companies included in this report against their respective total industry grouping. These shares were:

- for U.S. crude oil production (as a percent of 1993 total U.S. crude production), the 10 majors that reported financial results for U.S. oil and gas production operations, and the 81 independents included in this report, represented about 33 percent and 5 percent, respectively, of industry activity;
- for U.S. natural gas production (as a percent of 1993 total U.S. natural gas production), these same 10 majors and 81 independents represented about 28 percent and 9 percent, respectively, of industry activity;
- for domestic refining (as a percent of 1993 total U.S. crude oil distillation capacity), 15 majors and 14 independents represented about 55 percent and 14 percent, respectively, of industry activity;
- for U.S. coal production (as a percent of 1993 total U.S. coal production), 3 majors, 5 independents, and 6 other producers of coal represented about 25 percent of domestic industry production;
- for U.S. oil field drilling (as a percent of 1993 total U.S. oil field company revenue), 37 U.S. oil field companies represented about 84 percent of industry activity;
- for U.S. chemical operations (as a percent of 1993 total U.S. chemical industry sales), 11 majors represented about 18 percent of industry activity;
- for U.S. natural gas transmission and distribution (as a percent of 1993 total U.S. natural gas revenue), 55 U.S. companies represented about 74 percent of industry activity;

¹Major petroleum companies are vertically integrated. The independent oil and gas producers include publicly-owned oil and gas production companies not classified as majors. The primary Standard Industrial Classification (SIC) code for the independent oil and gas producers is 1311. Similarly, the independent refiners include those publicly-owned downstream petroleum companies not classified as majors. The primary SIC code for the independent refiners is 2911. Oil field companies include those petroleum companies involved in drilling oil and gas wells, providing exploration and oil and gas field services. Oil field companies are generally classified with the SIC codes 1381, 1384, and 1389. Coal companies correspond to SIC code 12. Natural gas transmission companies belong to SIC code 4922, and natural gas distribution companies to SIC code 4924. Companies involved in both the transmission and distribution of natural gas (SIC code 4923) are either classified as transmission companies or distribution companies, depending on which activity is the greater generator of revenue. Electric utilities correspond to those publicly-held electric utility companies classified under SIC code 4911.

- for electricity (as a percent of 1993 total revenue for publicly-held U.S. electric companies), 92 U.S. utilities represented about 78 percent of industry revenue.

An effort is made to ensure that period-to-period comparisons reflect actual operating results rather than unusual items. Unusual items are composed of gains and losses recognized in a company's income statement which are of a non-recurring nature and generally unrelated to current operations. These items include litigation settlements, gains and losses from large divestitures of assets, provisions for the cost of restructuring, and provisions of reserves for future liabilities. Thus, the corporate income measure shown in this report is net income from continuing operations, adjusted to eliminate the effects of unusual items.

The 19 major petroleum companies included in this report disclosed total unusual items that, on balance, increased net income by \$878 million in the first quarter of 1995 compared with unusual items that reduced net income by \$761 million in the first quarter of 1994. Including the effect of unusual items, the major petroleum companies' net income was \$5.9 billion in the first quarter of 1995 compared with \$3.5 billion in the first quarter of 1994, an increase of 70 percent. After adjusting for the effects of unusual items, the major petroleum companies' net income registered an 18-percent increase between the first quarter of 1994 and the first quarter of 1995.² The reporting of quarterly financial data is based on financial standards for interim reporting, as specified by the Financial Accounting Standards Board.³

Each interim period shall be viewed primarily as an integral part of an annual period. The results for each interim period shall be based on the accounting principles and practices used by an enterprise in preparation of its latest annual financial statements unless a change in an accounting practice or policy has been adopted in the current year. However, certain accounting principles and practices followed for annual reporting purposes may require modification at interim reporting dates so that the reported results for the interim period may better relate to the results for the annual period.

As an example of such modification, quarterly reports incorporate a company's estimate of its tax expense. In addition, if a company expects to replace its inventory drawdowns by the end of its fiscal year, recognition of inventory gains or losses can be deferred until the preparation of the annual financial statement. Also, unlike annual financial statements, quarterly financial reports are not audited and certified by an outside public accounting firm. However, quarterly financial reports must be prepared in accordance with generally accepted accounting principles and are subject to review by the Securities and Exchange Commission.

²Percent changes were calculated from unrounded data.

³Financial Accounting Standards Board, *Accounting Standards*, Current Text (Stamford, CT, 1990).

2. Financial and Energy Overview

During the first quarter of 1995 (Q195), crude oil prices averaged \$16.75 per barrel, or \$3.75 per barrel more than their first-quarter 1994 (Q194) levels (Table 1). Although Q195's higher oil prices marked a substantial quarter-over-quarter recovery for crude oil markets, it should be noted that in Q194 crude prices were at their lowest levels since the 1986 oil price collapse. Still, part of the recent firming in crude oil prices may be traceable to growth in world oil consumption. Between 1995 and 1996, global crude oil demand growth is expected to grow 2 percent--largely as a result of continued strong demand in Asia.⁴ In contrast, between 1989 and 1993, world crude oil demand growth averaged roughly a quarter percentage point per year.

Although crude oil supply, demand, and price are set in a global context, for many of the energy companies covered in this report most revenue and income are generated in the United States. In Q195, the current U.S. economic expansion entered its fourteenth quarter (Figure 1) with year-over-year real GDP growth of 4.0 percent between Q194 and Q195. The higher pace of economic activity in the U.S. would have produced an increase in energy demand had it not been for an unusually mild winter, which was a sharp contrast to Q194's exceptionally frigid temperatures. (In general, a 1-percent increase in real GDP raises petroleum demand by 150,000 barrels per day.) Heating degree days were 13 percent lower in Q195 than in Q194. In New England and the Middle Atlantic regions--particularly heavy users of home heating fuels--heating degree days were down 18 percent. Electricity and natural gas demand were also affected by the unusually mild temperatures. Between Q194 and Q195, the U.S. electric power industry used almost a third less oil, while residential electricity demand and residential natural gas demand fell 5 and 12 percent, respectively. In contrast, the industrial demand for natural gas and electricity grew substantially between Q194 and Q195.

Overall net income of 303 U.S. energy industry companies was up 5 percent between Q194 and Q195 (Table 2). Most of the increase in net income was traceable to income gains made by the major petroleum companies. The majors' improved financial performance came largely from earnings made by their chemical operations and, to a lesser extent, from higher oil and gas production earnings. Reduced refining margins, lower natural gas prices, and lower U.S. crude oil production in part offset the effects of higher crude oil prices and chemical segment earnings.

For the past 9 quarters, nonenergy industrial companies have outperformed the U.S. energy sector, as measured by return on equity. During Q195, nonenergy U.S. industry reported a 55-percent increase in income after reporting an exceptional 92-percent gain during the previous quarter. Recent returns on equity for the nonenergy sector have exceeded 20 percent--which represent the highest rates of quarterly profitability the nonenergy industrial companies have seen during the post-war era.⁵ In contrast, during Q195, energy companies reported a 13-percent return on equity (Figure 2). Although substantially lower than the 22-percent rate of return reported by the nonenergy group for Q195, this rate is roughly near the average return energy companies have realized over the past decade. A higher pace of economic activity, cost cutting, and the ability to raise prices for the first time in years led to the sizable improvement in nonenergy industry earnings.⁶ A weaker U.S. currency has also helped those industries dependent on export markets and those industries where competition from foreign imports is usually stiff. Virtually all industry segments outside energy reported higher income during the most recent

⁴ All of the data reported in this section were taken from Energy Information Administration, *Short-Term Energy Outlook, Quarterly Projections 1995 Second Quarter*, May 1995, DOE/EIA-0035(94/2Q)(Washington DC, May 1995).

⁵*The Wall Street Journal*, May 4, 1995, p. C1.

⁶*The Wall Street Journal*, February 21, 1995, p. A9.

reporting quarter, and Q195 marked the seventh consecutive quarterly gain in income for the nonenergy group of companies.

Table 1. Preliminary Energy Statistics

Supply and Prices ^a	First Quarter 1995	First Quarter 1994	Percent Change	
Energy Quantities				
Crude Oil Production (million b/d)	6.7	6.6	1.5	
Net Crude Oil Imports (million b/d) ^b	6.6	6.1	8.2	
Crude Oil Inputs to Refineries (million b/d)	13.5	13.1	3.1	
Refined Product Supplied (million b/d)	17.4	17.8	-2.2	
Product Exports (million b/d)	1.1	0.8	37.5	
Product Imports (million b/d)	1.6	2.1	-23.8	
Net Product Imports (million b/d)	0.5	1.3	-61.5	
Natural Gas Consumption (trillion cubic feet)	6.6	6.8	-2.9	
Natural Gas Production (trillion cubic feet)	4.6	4.7	-2.1	
Net Imports (trillion cubic feet)	0.6	0.6	0.0	
Coal Consumption (million short tons)	236		239	-1.3
Coal Production (million short tons)	261		254	2.8
Total Electricity Sales (billion Kwh)	770		768	0.3
Residential Electricity Sales (billion Kwh)	260		274	-5.1
Energy Prices				
Refiner Acquisition Cost of Imported Crude Oil (dollars per barrel)	16.75	13.00	28.8	
Gasoline, Retail (dollars per gallon)	1.18	1.11	6.3	
Electricity, Residential (cents per Kwh)	8.10	7.90	2.5	
Natural Gas, Residential (dollars per thousand cf)	5.96	6.08	-2.0	
Natural Gas, Wellhead (dollars per thousand cf)	1.54	2.08	-26.0	
Coal, Electric Utility (dollars per million Btu)	1.33	1.36	-2.2	

^aData for the most recent period are preliminary estimates. Percent change calculated from data presented in the cited source.

^bIncludes imports for the Strategic Petroleum Reserve.

Source: Energy Information Administration, *Short-Term Energy Outlook, Quarterly Projections, Second Quarter 1995*, DOE/EIA-0202(95/2Q)(Washington, DC, May 1995).

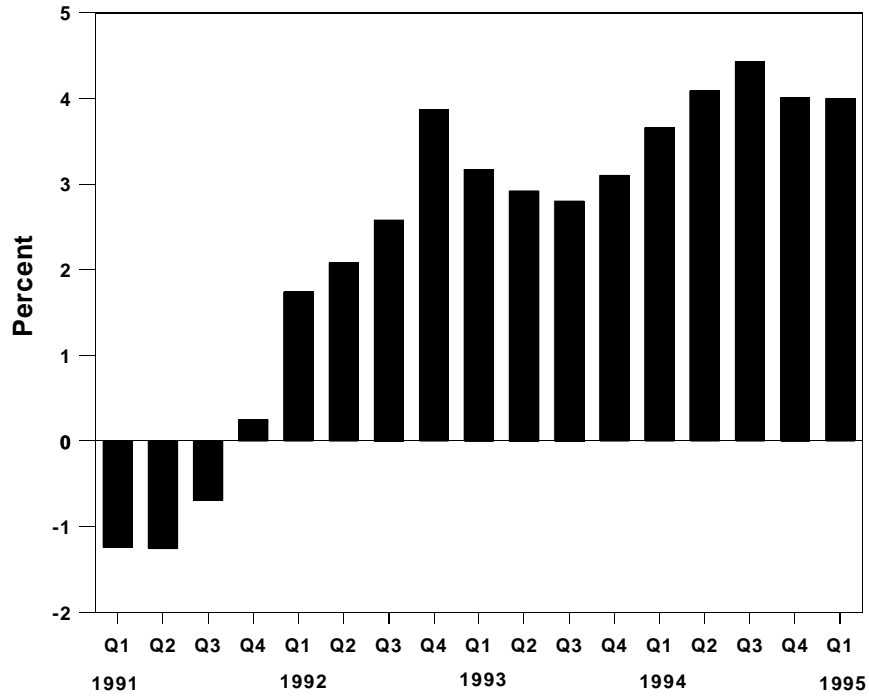


Figure 1. Year-over-Year Percent Change in Real Gross Domestic Product by Quarters, 1991-1995

Source: DRI/McGraw-Hill, *U.S. Central Data Base*, Data Item GDP87\$, May 3, 1995. The above figure represents each quarter's percent growth in real GDP relative to the corresponding quarter one year prior.

**Table 2. Revenue and Income Summaries
(Million Dollars)**

Energy Industries ^a	First Quarter 1995	First Quarter 1994	Percent Change
Fossil Fuel Industries			
Revenue			
Major Petroleum Companies (19)	115,037	100,681	14.3
Independent Oil and Gas Producers (81)	2,764	2,583	7.2
Independent Refiners (14)	10,503	8,610	22.0
Oil Field Companies (37)	6,993	6,667	4.9
Petroleum Subtotal (151)	135,308	118,546	14.1
Independent Coal Producers (5)	489	551	-11.7
Fossil Fuel Subtotal (156)	135,786	119,091	14.0
Income			
Major Petroleum Companies	5,005	4,228	18.4
Independent Oil and Gas Producers	62	150	-58.8
Independent Refiners	-6	221	NM
Oil Field Companies	320	283	12.8
Petroleum Subtotal	5,381	4,881	10.2
Independent Coal Producers	7	2	306.4
Fossil Fuel Subtotal	5,388	4,883	10.3
Rate-Regulated Energy Industries			
Revenue			
Natural Gas Transmission (23)	10,730	10,869	-1.3
Natural Gas Distribution (32)	8,042	8,933	-10.0
Electric Utilities (92)	45,024	46,783	-3.8
Rate Regulated Subtotal (147)	63,796	66,585	-4.2
Income			
Natural Gas Transmission	821	823	-0.3
Natural Gas Distribution	875	827	5.8
Electric Utilities	4,564	4,597	-0.7
Rate-Regulated Subtotal	6,260	6,248	0.2
Total Energy Industry Revenue (303)	199,582	185,676	7.5
Total Energy Industry Net Income	11,648	11,131	4.6
Nonenergy Industrial Companies' Net Income (308)	32,349	20,930	54.6

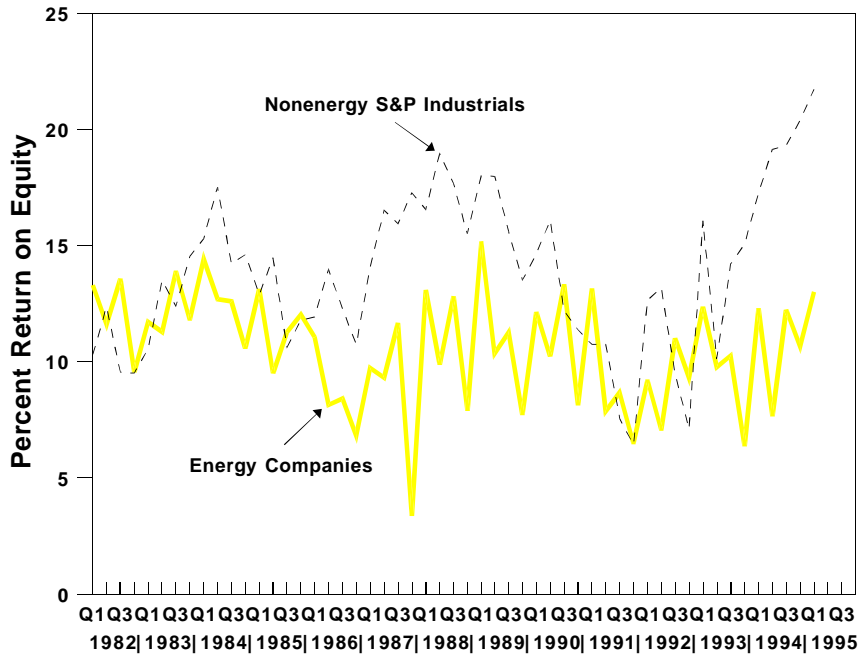
^aThe number of companies is reported in parenthesis. The petroleum companies are listed in the Appendix. Percent change was calculated from unrounded data.

NM=Not Meaningful.

Notes: The income data presented here have been adjusted to exclude the effects of unusual items. Totals may not equal sum of components due to independent rounding.

Sources: Compiled from companies' quarterly reports to stockholders and "Earnings Digest," *The Wall Street Journal*, various issues, April and May, 1995. The nonenergy industrials are based on data presented in *The Wall Street Journal*, May 1, p. B7. *The Wall Street Journal* group is adjusted to exclude energy and financial companies.

Figure 2. Quarterly Return on Equity for Energy and Nonenergy Companies, 1982-1995



Notes: Data for the first quarter of 1995 were estimated. The return on equity is calculated on an annualized basis.

Sources: Companies' reports to stockholders; "Earnings Digest," *The Wall Street Journal* (various issues, April and May, 1995); and Standard and Poor's Compustat Services, Inc., *Compustat II*, Quarterly Data Item 8 (Income before Extraordinary Items) and Data Item 60 (Stockholders' Equity), May 9, 1995.

3. Fossil Fuel Industries

Overall income for 156 companies primarily involved in fossil fuel production and processing was 10 percent higher in Q195 than in Q194 (Table 2). The improvement in income from fossil fuels was largely from the major petroleum companies' chemical operations, although higher earnings from their oil production operations also contributed positively to bottom-line results. Among petroleum companies, lower domestic crude oil production and falling natural gas prices and consumption (Table 1) worked to restrain upstream earnings growth. While higher crude oil prices favored upstream operations, the rise in crude oil prices contributed to a deterioration in refined product margins and downstream earnings. Downstream earnings were also reduced by lower refined product demand--particularly distillate and residual fuel demand--as an exceptionally mild winter led to lower heating oil consumption.

For the first quarter of 1995, petroleum companies reported that earlier cost cutting efforts and industry consolidation continued to reduce operating costs and improve bottom-line results. Efforts to reduce costs further are likely to continue. In recent months, Amoco, Mobil, and Sun have announced employment cutbacks. Further, Chevron announced the sale of its Port Arthur, Texas refinery to Canadian-owned Clark Refining & Marketing, Inc., while Kerr-McGee stated its intention to withdraw from petroleum refining altogether.

Oil and Gas Production

Income from the major petroleum companies' U.S. oil and gas production segment increased 21 percent between Q194 and Q195 (Table 3), as the favorable bottom-line effects of higher crude oil prices and domestic crude oil production were only partially offset by the negative impact of lower natural gas prices and lower domestic natural gas production. The independent producers are on average more oriented to natural gas than oil as a source of income than are the majors. Consequently, they fared poorly in Q195 due to the deterioration in natural gas markets. Income for independent oil and gas producers decreased 59 percent (Table 2). Natural gas production decreased 2 percent from the year-ago quarter and natural gas wellhead prices declined 26 percent (Table 1), to the lowest level since 1980.⁷ Overseas, the majors reported a 26-percent increase in income for their oil and gas production operations on the strength of higher oil prices and production.

Refining/Marketing Operations

Both the major petroleum companies and the independent refiners reported sharply lower downstream financial results in Q195. Independent refiners overall reported a loss in Q195 and the majors' U.S. downstream earnings dipped to near zero (Table 3). While crude oil prices rose by about 30 percent between Q194 and Q195, motor gasoline prices climbed only 6 percent (Table 1) and distillate prices fell. As a result, the U.S. refiners' composite margin fell to the lowest level since the first quarter of 1989, and was nearly \$2.50 per barrel lower than in the first quarter of 1994 (Figure 3).

Part of the reduction in downstream earnings was weather-related, as an exceptionally warm winter reduced the demand for space heating. In Q195, there were 13 percent fewer heating degree days than in Q194. In New

⁷Energy Information Administration, *Monthly Energy Review*, April 1995, DOE/EIA-0035(95/04)(Washington DC, April 1995), Table 9.1.

England and the Middle Atlantic regions, heating degree days were down 18 percent. As a result, distillate and residual fuel consumption declined 10 percent.⁸

Q195 marked the introduction of reformulated gasoline (RFG) in mandated regions (see box entitled "Introduction to Reformulated Gasoline"). The introduction of RFG had a negative impact on downstream earnings of some companies--particularly those with a large marketing presence on the East Coast. This was

⁸Energy Information Administration, *Short-Term Energy Outlook, Quarterly Projections 1995 Second Quarter*, May 1995, DOE/EIA-0035(95/2Q)(Washington DC, May 1995), Table 5.

**Table 3. Income and Expenditures for Major Petroleum Companies
(Million Dollars)**

Category ^a	First Quarter 1995	First Quarter 1994	Percentage Change
Line-of-Business Income			
Petroleum (18)	3,577	3,996	-10.5
Chemicals (11)	2,364	873	170.7
Coal (3)	54	53	1.1
Other Businesses (13)	546	393	38.9
Petroleum Income by Geographic Sector			
Domestic (11)	1,031	1,298	-20.6
Foreign (11)	2,022	1,939	4.3
Domestic Income by Function			
Oil and Gas Production (10)	879	726	21.1
Refining/Marketing (15)	19	690	-97.3
Foreign Income by Function			
Oil and Gas Production (11)	1,536	1,221	25.8
Refining/Marketing (6)	487	718	-32.2
Capital and Exploratory Expenditures			
Domestic Oil and Gas Production (6)	861	989	-13.0
Foreign Oil and Gas Production (8)	2,218	2,014	10.2
Refining/Marketing (10)	1,457	1,248	16.8
Other Functions (9)	943	889	6.1
Unallocated (9)	1,053	1,203	-12.5
Total Capital and Exploratory Expenditures (10)	6,523	6,342	3.0

^aThe number of companies is reported in parentheses. Percent change was calculated from unrounded data.

Notes: The income data presented here have been adjusted to exclude the effects of unusual items. Totals may not equal sum of components due to independent rounding.

Sources: Compiled from companies' quarterly reports to stockholders. Segmental income and capital expenditure data are presented for those companies who reported these items separately in their Q494 press releases.

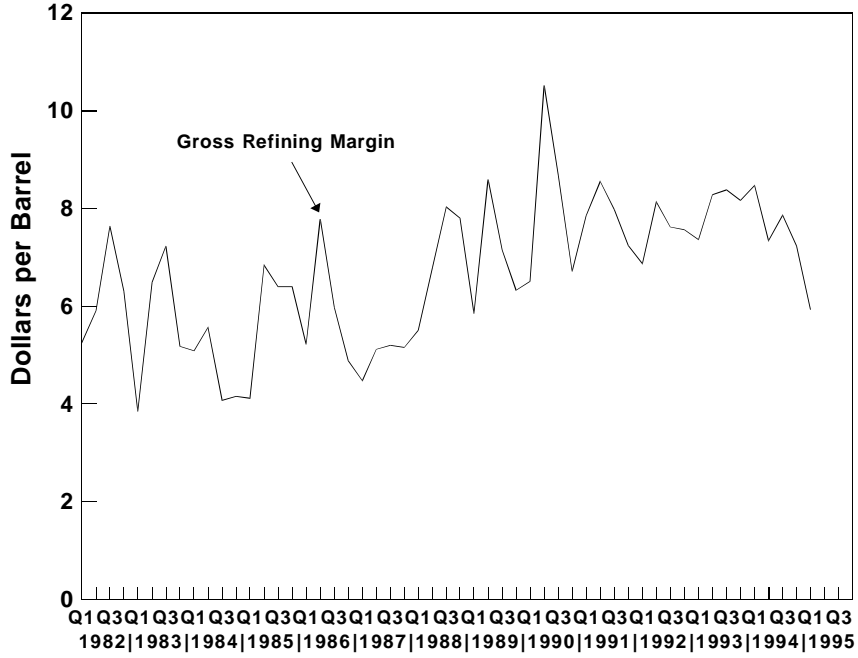


Figure 3. Gross U.S. Refining Margin by Quarter, 1982-1995

Note: Data for Q195 were estimated. The gross refining margin is the difference between the composite wholesale product price and the composite refiner acquisition cost of crude oil.

Source: Energy Information Administration, *Petroleum Marketing Monthly, March 1995*, DOE/EIA-0380(95/03) (Washington, DC, June 1995), Tables 1, 4, and 5.

Introduction of Reformulated Gasoline (RFG)*

Throughout 1994, the petroleum industry prepared for the introduction of reformulated gasoline (RFG), required year-round in almost a third of the U.S. gasoline market by the Clean Air Act Amendments of 1990 (CAAA). As the latest in a series of regulatory initiatives designed to improve the environmental quality of motor fuels, the CAAA necessitated a proliferation of reformulated and other clean products in the gasoline market by the end of 1994. Transition to the RFG program progressed without significant supply shortfalls or price runups, in contrast to the startup of the low sulfur diesel program when a combination of infrastructure problems and low stocks led to price spikes in some regions.

Prior to the start of the program, RFG use was expected in 9 mandated areas and various others that had "opted-in", which combined constituted about 35 percent of U.S. gasoline consumption. The original forecasts for RFG demand of about 2.5 million barrels per day (MMBD) in December 1994 and January 1995 never materialized, mainly because some areas elected to opt out of the program. These areas, which combined represented about 200 thousand barrels per day (MBD) of RFG demand, were among the most distant from supply facilities. Their exit reduced the risk of localized outages.

RFG production began in September, then accelerated as refiners built stocks before the program startup. RFG production was expected to reach peak levels earlier than it did. One of the reasons for the delay was the Colonial Pipeline break in October, which, by raising conventional gasoline prices relative to RFG, discouraged an early switch to RFG production. Once the break was repaired and market concern over conventional supplies eased, the differential returned, and RFG production surged.

The peak production level of 2.2 MMBD was reached in the first 3 weeks of December, prior to the realization of downward, opt-out related pressures. Although production never reached forecast levels, refiners began to cut output in late December, in response to lower demand, reduced financial incentives, and increased uncertainty as to what gasolines would eventually be required in many areas.

RFG stocks built fairly quickly once production began, and hit 40 million barrels (MMB) by the end of November, when RFG supply from terminals was required. Stocks peaked at about 44 MMB in mid-December, or about 23 days of supply at estimated January demand levels. After that, RFG stocks gradually declined, as falling demand was more than offset by production cuts. RFG stocks in late February stabilized around 40 MMB, or 21 days supply, low by historical standards, and have since fluctuated between 40 and 45 MMB.

Despite the relatively smooth start-up of the RFG program, and minimal price impacts on consumers, several issues emerged which cloud the outlook. Following the opting-out of various counties in Pennsylvania, New York, and Maine, and an early adjustment to lower oxygen content in northern New Jersey, the State of Wisconsin requested the suspension of RFG requirements for the remainder of the winter. The request, ultimately denied by EPA, was based on consumer complaints of high cost, health hazards (nausea and dizziness), and engine damage, all attributed to RFG. Particular complaints were lodged against methyl tertiary butyl ether (MTBE) as the source of noxious vapors, especially during cold weather. A unique aspect of the State's request was that the Milwaukee area, unlike the earlier opt-out areas in the East, was one of the nine severe ozone non-attainment areas mandated to participate in the program. Wisconsin has since rescinded its late opt-in of three other counties, and its state legislature has continued to seek legal means to exit the program, or at least to outlaw the use of MTBE in the State. Other jurisdictions are reported to be following the Wisconsin situation with great interest.

*The following article appeared in the Energy Information Administration, *Petroleum Marketing Monthly*, DOE/EIA-0380(95/05) (Washington DC, May 1995).

largely the result of several East Coast regions unexpectedly withdrawing ("opting out") from earlier commitments to voluntarily participate ("opt into") the RFG program. The resulting drop in RFG demand created an excess supply of RFG and depressed RFG prices.

The major petroleum companies also reported a deterioration in financial performance in foreign refining and marketing. Between Q194 and Q195, income from foreign refining/marketing operations fell 32 percent (Table 3). The rise in crude oil prices squeezed margins overseas as well as in the United States. Refined product margins declined from their Q194 levels in both Rotterdam and Singapore--although the deterioration of refining margins and earnings appeared concentrated more in the majors' European operations than in Asia.⁹

Chemical Operations

After petroleum operations, chemical operations are the largest source of income for the major petroleum companies. Income from the majors' chemical operations increased 171 percent between Q194 and Q195 (Table 3), marking the fifth consecutive quarter of financial improvement. Prior to Q194, the majors had not seen an improvement in year-over-year chemical earnings since the third quarter of 1992.¹⁰ All 11 majors reporting chemical income registered increased earnings. Chemical companies not affiliated with petroleum producers also showed an increase in earnings during Q195. Commodity chemical manufacturers reported a 128-percent increase in income between Q194 and Q195, while specialty chemical manufacturers reported a 53-percent increase in income.¹¹

Many of the majors attributed their financial improvement to higher chemical sales volumes and margins and lower operating expenses. Chemical sales and prices were stimulated in the first quarter by continued strong domestic economic activity and the recovery of the European market. Higher sales volumes reflected increased demand in the transportation and construction industries, the two major end-users of chemical production. The reduced value of the dollar in foreign markets boosted the United States' biggest exporting industry as well.¹² DuPont, for example, reported that earnings more than doubled in regions of Europe and Asia due to the weak U.S. dollar.¹³

⁹*Petroleum Market Intelligence*, January 5, 1995, p. 8; February 2, 1995, p. 8; March 2, 1995, p. 8; and April 2, 1995, p. 8.

¹⁰Energy Information Administration, *U.S. Energy Industry Financial Developments*, DOE/EIA-0543(Washington, DC), various issues.

¹¹*The Wall Street Journal*, May 1, 1995, p. B8. Note: DuPont has been removed from the *Wall Street Journal's* total of commodity chemical company earnings, as DuPont is classified as a major petroleum company in this report.

¹²*Wall Street Journal*, April 21, 1995.

¹³DuPont, *DuPont Corporate News*, April 24, 1995, p. 1.

Wall Street Surveys Indicate Increased Expenditures for Exploration and Development in 1995

A survey conducted by Salomon Brothers¹⁴ together with data from EIA's Financial Reporting System (FRS⁴⁵) and compilations of oil and gas disclosures by Arthur Andersen & Co.¹⁶ suggest that exploration and development (E&D) expenditures for the United States and foreign locales in 1995 will be up from 1994 levels.¹⁷ Of particular note is the continued upswing in E&D expenditures in the United States.

After tumbling to the lowest level since 1976 in 1992, E&D expenditures for U.S. oil and gas production increased for the second consecutive year in 1994 (Figure 4). Much of this increase appears traceable to developments in natural gas markets. A rebound in natural gas prices during 1993 gave rise to an accelerated pace in North American natural gas E&D activity. The completion of pipeline construction which greatly increased Canadian natural gas producers' access to U.S. consumers also inspired a more positive reassessment of the long-term growth in an increasingly integrated North American natural gas market. However, after showing some buoyancy in 1993, natural gas wellhead prices have drifted steadily lower. Nevertheless, although the wellhead price of natural gas in 1994, on an annual basis, was below that of 1993, it was at the second highest level since 1986.

Rig activity reflected a positive outlook. The natural gas rig count for 1994 was up 17 percent following a 10-percent rise in 1993 (Figure 5). The U.S. offshore also appeared to be a target of heightened E&D activity. The offshore rig count in 1994 was up 24 percent from 1993 and nearly double the level of 1992.

The rise in U.S. E&D expenditures since 1992 was led by the independents. Estimated 1994 expenditures were \$1.2 billion over 1993's expenditures, with all of the increase traceable to the independents (Figure 4). Among the majors, large increases reported by BP America, Mobil, and Shell Oil were about balanced by large decreases reported by Amoco, ARCO, and Exxon.

Planned expenditures for 1995, based on the Salomon Brothers survey, show a 3-percent rise from 1994. Overall increases in planned spending for the independents are of about the same magnitude as for the majors. The modest increase planned for 1995 reflects dampened expectations for natural gas as well as continued efforts to cut costs. In fact, the outlook for U.S. oil and gas production appears to have diminished subsequent to the Salomon Brothers survey, which was conducted in late 1994. For the 6 majors reporting upstream expenditures in Q195, U.S. exploration and development expenditures fell 13 percent from the first quarter of 1994 (Table 3).

In contrast, spending by the majors on foreign E&D rose 10 percent between Q194 and Q195. Overseas, the Salomon Brothers survey indicates that the majors intend to increase E&D expenditures by roughly 5 percent in 1995 (Figure 6). Several factors are responsible for the increased focus on foreign exploration and production activity, although the most prominent of which is the persistently low returns the majors have realized on their domestic relative to their foreign upstream investments (Figure 7).

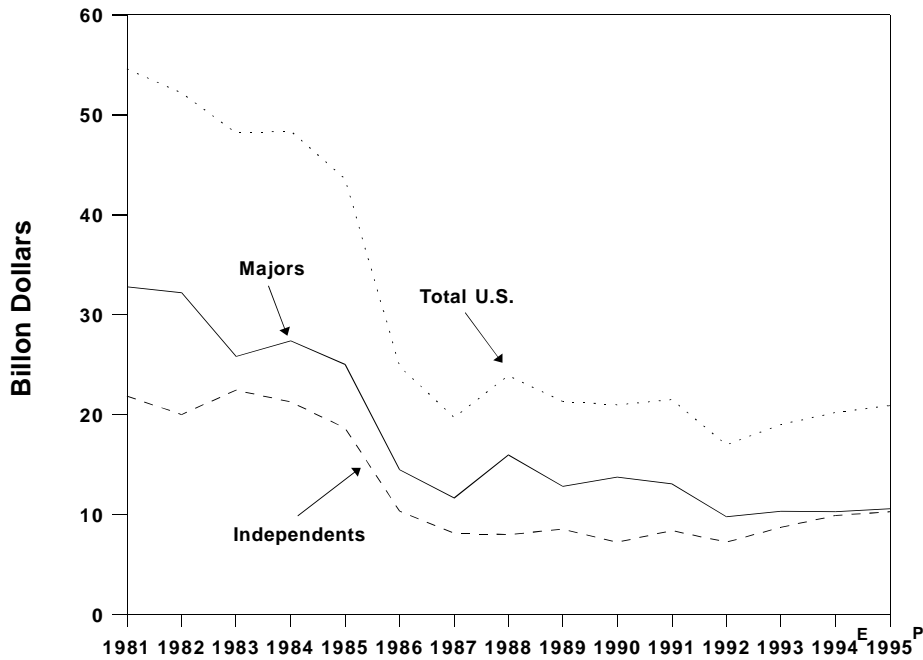
¹⁴Salomon Brothers, *Survey and Analysis of 1995 Worldwide Oil and Gas Explorations and Production Expenditures* (January 3, 1995).

¹⁵Energy Information Administration, *Performance Profiles of Major Energy Producers 1993*, DOE/EIA-0206(93)(Washington, DC, January 1995).

¹⁶Arthur Andersen & Co., S.C., *Oil and Gas Reserve Disclosures* (Chicago, IL, July 1994).

¹⁷The last estimate of total U.S. E&D expenditures based on an industry-wide statistical survey was in 1991 and was reported in the American Petroleum Institute, *Survey of Oil and Gas Expenditures* (Washington DC, November 1992). In this report, total U.S. exploration and development expenditures for 1992 were estimated by first computing the percent change in expenditures from 1991 to 1992 for companies, other than the major energy companies reporting expenditures to EIA's Financial Reporting System, that reported E&D expenditures for both 1991 and 1992 and were included in Arthur Andersen's *Oil and Gas Reserve Disclosures*. This percent change from 1991 to 1992 was applied to the total 1991 U.S. E&D expenditures (reported by the American Petroleum Institute) less the total for FRS companies to obtain an estimate for the independent (i.e., non-FRS) oil and gas producers' U.S. E&D expenditures in 1992. This estimate, plus the actual reported 1992 expenditures of the FRS companies, yields the estimate of total U.S. E&D expenditures for 1992. For the 1993 estimate, a similar procedure based on companies reporting expenditures in both 1992 and 1993 was applied to the 1992 estimate. For 1994 and 1995, the estimate was based on companies included in both the Arthur Andersen publication and the Salomon Brothers' survey. It should be noted that E&D expenditures, and estimates of them, exclude expenditures for proved acreage.

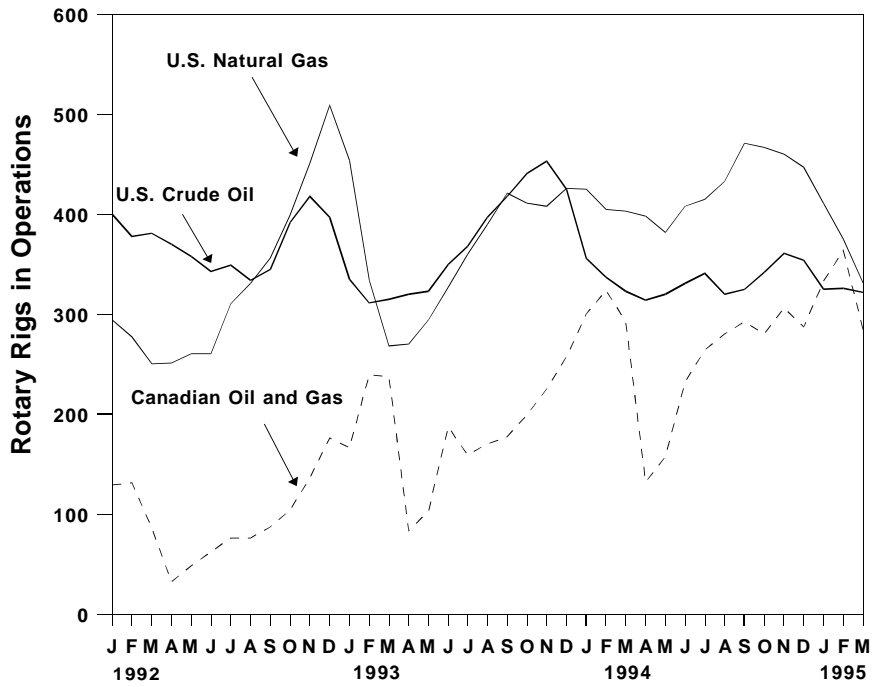
Figure 4. Majors and Independents U.S. Exploration and Development Expenditures, 1981-1995



E=Estimated, P=Planned.

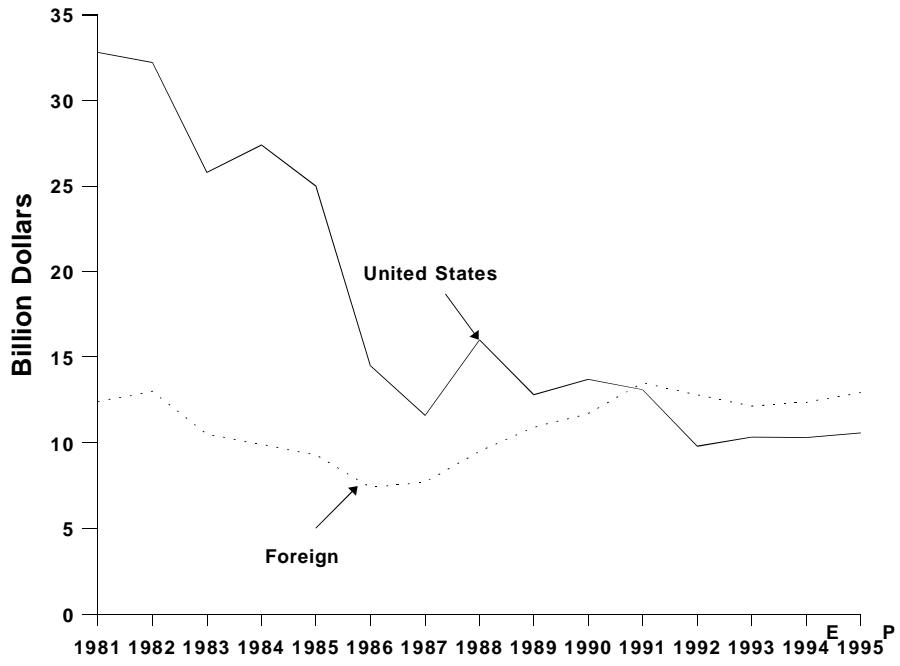
Notes: Data for 1994 and 1995 was projected using data listed in Salomon Brothers, *Survey and Analysis of Worldwide Oil and Gas Production Expenditures, 1994 and 1995*. Expenditures exclude purchases of existing reserves.

Figure 5. Rotary Rigs in Operation by Month, 1992-1995



Source: Baker Hughes, Inc.

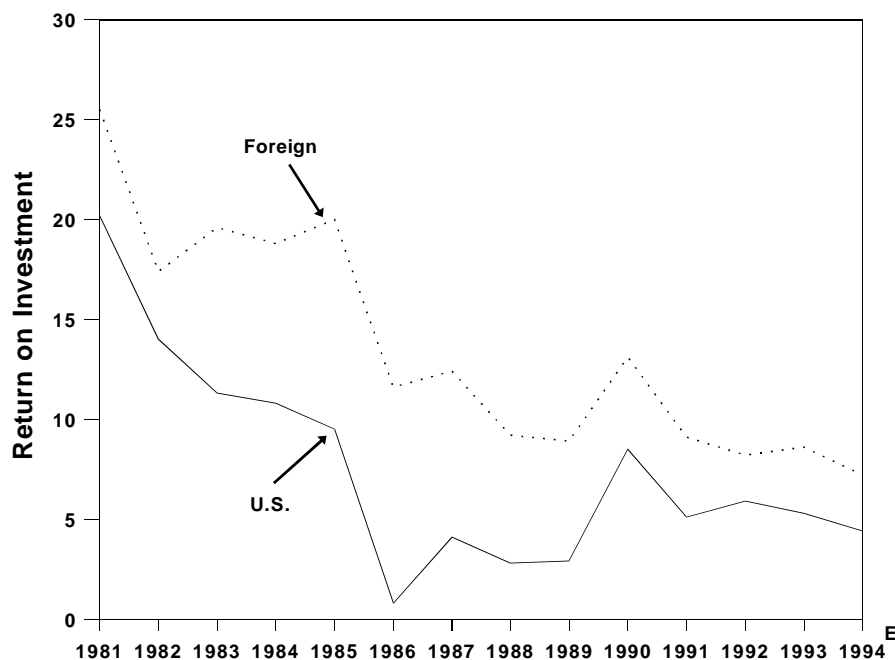
Figure 6. Foreign versus U.S. Exploration and Development Expenditures, 1981-1995



E=Estimated, P=Planned.

Notes: Data for 1994 and 1995 was projected using data listed in Salomon Brothers, *Survey and Analysis of Worldwide Oil and Gas Production Expenditures, 1994 and 1995*. Expenditures exclude purchases of existing reserves.

Figure 7. Foreign versus U.S. Upstream Rates of Return, 1981-1994



E=Estimated.

Note: Data for 1994 are estimated from filings of Securities and Exchange Commission's Form 10-Q.

Source: Energy Information Administration, *Performance Profiles of Major Energy Producers 1993*, DOE/EIA-0206(93) (Washington DC, January 1995).

Oil Field Companies

Overall net income of oil field companies increased 13 percent between Q194 and Q195 (Table 2). However, the improved financial performance of oil field companies was largely due to an increase in the demand for drilling equipment and services. Segmentally, income for drilling equipment and drilling service companies increased 23 percent, while drillers realized a 79-percent decline in earnings. Most of the decline in income for drillers was accounted for by one company. Excluding Rowan Company, net income of drillers fell 18 percent. Between Q194 and Q195, the quarterly average natural gas rig count in the U.S. declined 9 percent¹⁸ primarily due to weak natural gas prices. Over the same period, the U.S. crude oil rig count decreased 4 percent.¹⁹

The rig count (both crude oil and natural gas) in Canada, an increasingly important supplier of natural gas to the United States, increased 7 percent between Q194 and Q195.²⁰ Much of the increase in Canadian natural gas production has been stimulated by increased imports of Canadian natural gas by the United States. In Q195, the United States imported 698 billion cubic feet of natural gas from Canada--99 percent of total U.S. natural gas

¹⁸Energy Information Administration, *Monthly Energy Review*, April 1995, DOE/EIA-0035(95/04)(Washington, DC, April 1995), Table 5.1.

¹⁹Energy Information Administration, *Monthly Energy Review*, April 1995, DOE/EIA-0035(95/04)(Washington, DC, April 1995), Table 5.1.

²⁰*Oil and Gas Journal*, February 20, 1995, p. 104.; March 20, 1995, p. 125.; and April 17, 1995, p. 86.

imports.²¹ In regions outside North America, oil and gas drilling activity was flat from the year-ago period. However, in South America, particularly in Argentina, Colombia, and Venezuela, oil and gas drilling activity increased 43 percent between Q194 and Q195.²² This increase in exploration and development activity can be attributed in part to the privatization of Argentina's state-owned oil company Yacimientos Petroliferos Fiscales (YPF) on June 29, 1993. The deregulation and privatization of major Argentine industries has opened regions for oil and gas exploration and production to foreign investment.²³

Coal Producers

Warmer winter temperatures during Q195 were largely responsible for a 1-percent reduction in coal consumption led by electric utilities. Electric utilities account for nearly 90 percent of U.S. coal consumption.²⁴ Coal prices paid by electric utilities fell 2 percent (Table 1). Coal production, however, increased 3 percent compared to a year earlier.

In spite of the reduced prices and sales, coal producers' earnings for Q195 were nearly flat (Table 4). Reduced operating costs may have offset the effects of lower prices. In their quarterly financial press releases, several of the companies noted such reductions.²⁵ Efforts to reduce operating costs have been apparent for several years in the coal industry. For example, over the last decade, miners' output has increased 78 percent.²⁶

The low level of coal stocks held during Q195 also may have contributed to the downward pressures on coal prices during the period. Although coal stocks were 26 percent higher than in Q194, they were 11 percent lower than two years earlier, prior to the 1993 coal strike. Failure to rebuild stocks to previous levels during the intervening year may suggest a decision on the part of utilities to reduce inventory costs, thus placing further downward pressure on coal prices.

²¹Energy Information Administration, *Monthly Energy Review, May 1995*, DOE/EIA-0035(95/05)(Washington, DC, May 1995), Table 4.3.

²²*Oil and Gas Journal*, February 20, 1995, p. 104.; March 20, 1995, p. 125.; and April 17, 1995, p. 86.

²³*Oil and Gas Journal*, February 13, 1995, p. 45.

²⁴Energy Information Administration, *Short-Term Energy Outlook, Quarterly Projections 1995 Second Quarter*, May 1995, DOE/EIA-0035(94/2Q)(Washington DC, May 1995), Table 12.

²⁵For instance, see: Cyprus Amax Minerals, *Company News*, April 25, 1995, p. 5; Kerr-McGee, *News Release*, May 2, 1995, p.1; and Zeigler, *First Quarter Press Release*, April 27, 1995, p. 2.

²⁶Energy Information Administration, *Coal Industry Annual 1993*, DOE/EIA-0584(93) (Washington, DC, December 1994), Table 48.

Table 4. U.S. Coal Industry, Income and Production Summary

Company Type	Income (Million Dollars)		Percent Change	Percent of U.S. Production 1993
	First Quarter 1995	First Quarter 1994		
Major Petroleum Companies (3) ^(a)	54	53	1.9	8.2
Independent Coal Producers(5) . .	7	2	306.4	7.1
Other Coal Producers(6) ^{(a)(b)}	45	52	-13.3	12.2
Total	106	107	-1.0	27.5

^aOnly includes income derived from coal operations.

^bIncludes companies whose primary business is other than coal production.

Note: Totals may not equal sum of components due to independent rounding.

Source: Income: Companies' quarterly reports to stockholders. Coal data from the following companies was included in this report: Arch Mineral, Atlantic Richfield, Ashland Coal, Coastal Corp, Cyprus/Amax, Entech, Kerr-McGee, Nacco Industries, Pittston, Rochester and Pittsburgh Coal, Transco Coal, and Zeigler Coal. Production: The National Coal Association, *Coal Data 1994 Edition*, p. II-34.

5. Rate-Regulated Energy Industries

Natural Gas

The demand for natural gas is strongly weather-related and both natural gas transmission companies and natural gas distribution companies usually generate most of their revenue during the cooler months of the first and fourth quarters. However, the first quarter of 1995 experienced much warmer weather than normal. The number of heating degree days in Q195 was 13 percent lower compared to the frigid temperatures of Q194, and was 10 percent below normal temperatures.²⁷ Overall U.S. consumption of natural gas declined 3 percent in Q195 (Table 1). Residential and commercial demand decreased 11 percent and 10 percent, respectively.²⁸

Natural gas transmission companies reported a slight decrease in revenue and in income between Q194 and Q195 (Table 2). The financial performance of transmission companies was further hindered by the 26-percent decline in natural gas wellhead prices (Table 1), as some of these companies have oil and gas exploration operations. Natural gas distribution companies reported a 10-percent decline in revenues and a 6-percent drop in income due to warmer weather in Q195 and to a consequent reduction in natural gas distribution volumes.

Electric Utilities

Overall electricity sales in Q195 were flat compared with Q194 (Table 1). The same mild winter weather that negatively affected the financial performance of the natural gas industry also restrained earnings growth for electric utilities. For residential consumers, normally the largest users of electricity, consumption of electricity declined 5 percent. However, commercial and industrial sector electricity demand increased 4 percent and 3 percent, respectively, reflecting growth in the economy.²⁹ On balance, overall net income of 92 electric utilities was down slightly (Table 5).

²⁷Energy Information Administration, *Short-Term Energy Outlook, Quarterly Projections 1995 First Quarter*, May 1995, DOE/EIA-0035(95/2Q)(Washington DC, May, 1995), Table 1.

²⁸Energy Information Administration, *Short-Term Energy Outlook, Quarterly Projections 1995 Second Quarter*, May 1995, DOE/EIA-0035(95/2Q)(Washington DC, May, 1995), Table 10.

²⁹Energy Information Administration, *Short-Term Energy Outlook, Quarterly Projections 1995 Second Quarter*, May 1995, DOE/EIA-0035(95/2Q)(Washington DC, May 1995), Table 12.

**Table 5. U.S. Electric Utility Revenue and Income by Region
(Million Dollars)**

Region ^a	First Quarter 1995	First Quarter 1994	Percentage Change
Revenue			
New England (12)	2,948	3,023	-2.5
Mid-Atlantic (15)	10,610	11,151	-4.9
South Atlantic (12)	8,744	8,841	-1.1
E. North Central (17)	7,413	7,672	-3.4
E. South Central (2)	375	411	-8.7
W. North Central (13)	2,494	2,627	-5.1
W. South Central (8)	4,723	5,182	-8.9
Mountain (7)	1,693	1,725	-1.9
Pacific (6)	6,023	6,151	-2.1
Total (92)	45,024	46,783	-3.8
Income			
New England	246	276	-10.7
Mid-Atlantic	1,207	1,321	-8.6
South Atlantic	947	898	5.5
E. North Central	777	777	-0.0
E. South Central	38	52	-25.8
W. North Central	259	260	-0.4
W. South Central	224	258	-13.5
Mountain	132	133	-1.0
Pacific	734	623	17.9
Total	4,564	4,597	-0.7

^aThe number of companies is reported in parenthesis. Percent change was calculated from unrounded data.

Notes: The income data presented here have been adjusted to exclude the effects of unusual items. Totals may not equal sum of components due to independent rounding.

Sources: Compiled from companies' quarterly reports to stockholders and "Earnings Digest," *The Wall Street Journal*, various issues, April and May, 1995.

Appendix

The 151 Petroleum Companies Covered in this Report

Major Petroleum Companies(19)	Independent Oil and Gas Producers(81)	Independent Refiners(14)	Oil Field Companies(37)
Amerada Hess Corp Amoco Corp Atlantic Richfield Co Chevron Corp Coastal Corp E.I. DuPont de Nemours Exxon Corp Fina Corp Kerr-McGee Mobil Corp Murphy Corp Occidental Petroleum Pennzoil Co Phillips Petroleum Co Shell Oil Co. Sun Co Texaco Inc Unocal Corp USX Corp	Abraxas Petroleum Alamco Inc Alexander Energy American Exploration Anadarko Petroleum Apache Corp Barnwell Industries Barrett Resources Basin Exploration Bellwether Exploration Berry Petroleum Blue Dolphin Box Energy Brock Exploration Burlington Resources Cabot O&G Cairn Energy USA Callon Petroleum Chesapeake Energy Clayton Williams Energy Coda Energy Coho Energy Columbus Energy Comstock Resources Convest Energy Corp Cross Timbers Oil Deeptech International Dekalb Energy Devon Energy Edisto Resources Enex Resources Equity Oil Garnet Resources Corp Gerrity Oil & Gas Global Industries Global Natural Resources Hallwood Energy Corp Harcor Energy Corp Howell Corp HS Resources Hugoton Energy Key Production	Ashland Oil Castle Energy Clark USA Crown Central Diamond Shamrock Louisiana Land & Explor Mapco Quaker State Tesoro Tosco Total Petroleum Ultramar Valero Witco	Atwood Oceanics Baker Hughes BJ Services Camco Cliffs Drilling Daniel Industries Dawson Geophysical DI Industries Dresser Industries Dual Drilling Energy Services Energy Ventures Enterra Corp Global Marine Halliburton Helmerich & Payne Helm Resources Hornbeck Offshore Key Energy Group Marine Drilling Co Nabors Industries Inc Newpark Resources Noble Drilling Parker Drilling Patterson Energy Pool Energy Services Pride Petroleum Services Production Operators Reading & Bates RPC Rowan Cos Schlumberger Smith International Tidewater UTI Energy Varco International Weatherford International

Lomak Petroleum Inc		
Louis Dreyfus Natural Gas		
Magellan Petroleum		
Magnum Petroleum		
Maxus Energy		
Mcfarland Energy		
Mesa Inc		
National Energy Group		
Newfield Exploration		
Noble Affiliates		
Nuevo Energy Co		
Oryx Energy		
Parallel Petroleum		
Parker & Parsley		
Patrick Petroleum		
Petrocorp		
Petroleum Development		
Phoenix Resources		
Plains Petroleum		
Plains Resources		
Pogo Producing		
Presidio Oil		
Prima Energy		
Questa Oil & Gas		
Santa Fe Energy		
Sheffield Exploration		
Snyder Oil Corp		
St. Mary Land & Explor		
Stone Energy Corp		
Swift Energy		
Tide West Oil		
Tipperary Corp		
Triton Energy		
Union Texas Petroleum		
Unit Corp		
Vintage Petroleum		
Wainoco Oil		
Wiser Oil		
WRT Energy		