

**Performance Profiles
of Major Energy Producers
2004
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Data File Information

Historical Financial Reporting System (FRS) data are available from EIA's File Transfer Protocol (FTP) site. These data cover the years 1977 through 2004 and are published in EIA's annual editions of *Performance Profiles of Major Energy Producers*. There are two sets of data: (1) aggregate data from the FRS survey form; and (2) multiyear tables from Appendix B of *Performance Profiles of Major Energy Producers*.

FRS 1977–2004 data files can be downloaded from the EIA FTP site by accessing the following EIA Web site: <http://www.eia.doe.gov/emeu/finance/page2.html>. For further assistance, please contact the National Energy Information Center by telephone at (202) 586-8800, by fax at (202) 586-0727, by TTY at (202) 586-1181, or by e-mail at infoctr@eia.doe.gov.

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Preface

Performance Profiles of Major Energy Producers presents a comprehensive annual financial review and analysis of the domestic and worldwide activities and operations of the major U.S.-based energy-producing companies. The U.S.-based energy companies that respond to the Financial Reporting System (FRS) Form EIA-28 are considered to be U.S. majors by the Energy Information Administration (EIA) (see P.L. 95-91, Sec. 205 (h)). Per the requirements of that statute, the Administrator of the EIA designates "major energy-producing companies" and selects them from publicly available data as respondents to the FRS. Currently, the Administrator of the EIA uses the following selection criteria: U.S.-based publicly-owned companies or U.S.-based subsidiaries of publicly-owned foreign companies that had at least one percent of either production or reserves of oil (crude oil and natural gas liquids) or natural gas in the United States, or one percent of either refining capacity or petroleum product sales in the United States. The information is collected in accordance with the confidential information protection provisions of Title 5, Subtitle A, Public Law 107-347 and other applicable Federal laws and is used for statistical purposes only. The survey responses are kept confidential and are not disclosed in identifiable form to anyone other than employees or agents without consent of the company. The names of the companies selected, though, are based on publicly available information, are not confidential, and are publicly released. Appendix A, Table A1, lists the companies that reported to the FRS for the years 1974 through 2004. Three of the FRS companies are owned by foreign companies: BP America—owned by BP plc; Total Holdings USA—owned by TotalFinaElf; and Shell Oil—owned by Royal Dutch/Shell.

The 29 major U.S. energy companies reporting to the EIA's FRS derive the bulk of their revenues and income from petroleum operations, including natural gas production (see the box titled "The FRS Companies in 2004" in the Executive Summary of this report). A majority of these companies are multinational, with 42 percent of the majors' net investment located abroad. Worldwide petroleum and natural gas market developments are of primary importance to these companies' financial performance.

The report primarily examines these companies' (the majors') operations on a consolidated corporate level, by individual lines of business, by major functions within each line of business, and by various geographic regions. Previously, the report included a separate chapter on a companion analysis of foreign investment trends and transactions in U.S. energy resources, assets, and companies. However, EIA now publishes this report, *Foreign Direct Investment in U.S. Energy*, separately on the Internet (see <http://www.eia.doe.gov/emeu/finance/fdi/index.html>). The purpose of the foreign direct investment report is to provide an assessment of the degree of foreign ownership of energy assets in the United States. Section 657, Subpart 8 of the U.S. Department of Energy Organization Act (Public Law 95-91) requires an annual report to Congress that presents "...a summary of activities in the United States by companies which are foreign owned or controlled and which own or control United States energy sources and supplies...."

Performance Profiles focuses on annual aggregate changes in profits, cash flow, and investment in the U.S. energy industry resulting from major energy companies' current operations. It highlights significant organizational decisions of the majors (such as those involving corporate mergers or joint ventures) and discusses new strategic directions (such as concentration on core businesses or competencies, movements into new lines of business, or changes in global investment patterns). *Performance Profiles* also explores changes in the majors' investment and resource development patterns, which may result in new or increased opportunities for independent oil and gas producers and fast-growing petroleum refiners in the United States.

This edition of *Performance Profiles* reviews financial and operating data for the calendar year 2004. Although the focus is on 2004 activities and results, it also discusses important trends prior to that time and emerging issues relevant to U.S. energy company operations.

Chapter 1 provides more details on key financial and operating developments in 2004.

In addition to a summary of market activities, Chapter 2 also presents information about the FRS group of companies and their shares of energy production and refining capacity.

Chapter 3 gives more in-depth coverage of financial and operating trends in oil and gas production and refining and marketing. The oil and gas production section includes a review of revenues, production, production costs, and finding costs. The refining and marketing section covers sales, profitability, margins, and costs in domestic and foreign refining and marketing.

The analysis in this report is based on detailed financial and operating data and information submitted each year to the EIA on Form EIA-28, the FRS. The EIA supplements the analysis and FRS data with additional

information from company annual reports and press releases, disclosures to the U.S. Securities and Exchange Commission, news reports and articles, and various complementary energy industry data sets.

Because the Form EIA-28 data are collected by the EIA on a uniform, segmented basis, the comparability of information across energy lines of business is unique to the FRS. For example, the FRS enables comparison of petroleum activities of the major U.S. energy companies (and financial returns attributable to these activities) to activities in other lines of energy business (such as coal and alternative energy, downstream natural gas, and electric power) or nonenergy areas (such as chemicals). Similarly, the FRS enables comparison of financial returns and operating results from domestic activities to results from foreign activities and operations.

The information in *Performance Profiles* responds to the requirements of the FRS, which are set forth in P.L. 95-91, the Department of Energy Organization Act of 1977 (see <http://www.eia.doe.gov/emeu/finance/page1a.html>). This Web site also provides information about Form EIA-28. Both this report and similar energy financial analysis reports the EIA provides (see <http://www.eia.doe.gov/emeu/finance/pubs.html>) are intended for use by the U.S. Congress, government agencies, industry analysts, and the general public.

Also see Appendix A of this report for information concerning the format of Form EIA-28, important financial reporting concepts and accounting principles, and other information about the FRS. For a glossary of terms and definitions used in this report, see <http://www.eia.doe.gov/emeu/perfpro/glossary.html>.

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Executive Summary

The Energy Information Administration (EIA) produces the *Performance Profiles of Major Energy Producers 2004* from information provided on Form EIA-28, the Financial Reporting System (FRS). U.S. major energy companies (see the box titled “The FRS Companies in 2004”) report financial and operating information annually to the FRS. The report examines the companies’ operations on a consolidated corporate level, by individual lines of business, by major functions within each line of business, and by various geographic regions.

The FRS companies’ 2004 net income increased 41 percent from the 2003 level to \$81.1 billion, the highest net income (in constant dollars) in the history of the FRS, which dates back to 1974. Excluding the effect of unusual items (such as accounting changes, asset dispositions and write-downs, and tax adjustments), net income rose 44 percent from the 2003 level. Higher prices for crude oil, natural gas, and petroleum products contributed to a 28-percent increase in operating revenues. Operating expenses also increased, by 26 percent, as higher prices stimulated exploration and development activities and pushed up refinery operating expenses. The larger increase in revenues resulted in a 50-percent increase in operating income. The FRS companies earned a 22.1-percent return on stockholders’ equity (ROE) in 2004, surpassing the previous peak of 21.1 percent in 1980. ROE for the FRS companies averaged 5 percentage points higher than the S&P Industrial companies from 2000 to 2004, after averaging 3 percentage points less from 1985 to 1999.

Strong economic growth and the largest annual increase in world oil demand since 1976 helped to propel crude oil and petroleum product prices to the highest levels since 1985 (in constant dollars). Production losses due to the effects of Hurricane Ivan kept upward pressure on prices late in the year. U.S. natural gas wellhead prices in 2004 reached the highest level on record.

The higher crude oil and natural gas wellhead prices made oil and natural gas production the most profitable line of business for the FRS companies, providing \$59 billion in net income in 2004 and a return on net investment in place (ROI) of 18.6 percent. The \$59 billion in earnings was \$13 billion higher (in constant 2004 dollars) than the previous peak in 1981.

Net income for the FRS companies’ refining/marketing segment more than doubled from 2003 to \$22 billion in 2004. Higher demand for petroleum products pushed prices up by more than the increased cost of crude oil. Domestic refinery operating costs declined (on a per-barrel basis), resulting in a net refined product margin of \$2.99 per barrel in 2004, the highest (in constant 2004 dollars) in the 28-year history of the FRS. The average ROI for domestic and foreign refining/marketing rose to 18.3 percent, also the highest ever in the FRS survey.

Net income for the nonenergy line of business rose substantially to \$4 billion, the highest net income for this line of business since 1997. Sharply higher earnings in chemical business segments were the primary reason for the increase in nonenergy income.

Cash flow from operations for FRS companies increased in 2004 to \$136 billion, the highest level reported in the 18 years that the FRS survey has collected this information. Encouraged by the high-price environment, FRS companies increased the amount of cash raised through disposals of assets by 22 percent over that in 2003.

The largest use of cash was for capital expenditures (measured as additions to investment in place), although the increase was considerably smaller than the increase in cash flow from operations. Capital expenditures increased by \$6.6 billion in 2004 to \$86.5 billion.

FRS companies increased the amount of cash used for non-investment activities in 2004. Purchases of treasury stock more than doubled. Nearly all FRS companies also increased dividend payments, although the FRS total declined from the 2003 amount (due to a large decrease by one respondent). The FRS companies’ long-term debt-to-equity ratio in 2004 fell to 45 percent, well below the level of the S&P

Industrial companies. In addition, the net increase in cash and cash equivalents amounted to \$21 billion in 2004, the largest increase ever reported for net additions to cash.

Expenditures for oil and natural gas exploration (excluding acquisition of unproved acreage cost) by FRS companies increased slightly in 2004 to \$8.4 billion but remained well below the levels of the early 1980s. Development expenditures rose 5.1 percent from the 2003 amount to \$38.4 billion in 2004, the highest level since 1982 (in constant 2004 dollars). Higher prices have encouraged oil and natural gas producers to develop known reserves to increase production, but many have been hesitant to raise exploration budgets, basing investment decisions on crude oil prices that are far below current levels. Some of the reasons given for not maintaining investments at the same rate as increases in cash flow include limited access to the best prospects, higher tax pressure on oil companies by producing-country governments, shortage of skilled personnel, and strains on the supply of drilling rigs.

Regionally, despite its maturity as an oil- and natural gas-producing region, the U.S. onshore continues to receive more exploration and development expenditures than any other FRS region. Expenditures for development predominate in the U.S. onshore region: they rose to \$12.1 billion in 2004, nearly twice the level of any other FRS region. Since 1992, FRS companies have put more exploration expenditures into the U.S. offshore region than any other FRS region, although the annual amount has declined since 2000. Exploration and development expenditures declined 7 percent in 2004, which may be due in part to project delays as a result of Hurricane Ivan. For the past 2 years, FRS companies have put more exploration and development expenditures into Africa than any other foreign region. Canada continues to receive considerable interest from FRS companies. Exploration and development expenditures nearly tripled from 1998 to 2004.

Capital expenditures by the FRS companies for refining and marketing increased 9 percent in 2004 over 2003. Three refineries were exchanged within the FRS group. FRS companies reported downstream capital expenditures to meet Tier II and low-sulfur clean fuel requirements and enable them to process heavier (and thus cheaper) crude oil.

FRS companies' reserve additions through drilling (i.e., excluding purchases and sales of reserves) fell sharply in 2004 compared to 2003, primarily as a result of large negative reserve revisions for oil. The reserve replacement ratio for natural gas of 126 percent was the highest ever reported in the FRS survey, in sharp contrast to the reserve replacement ratio for oil, which dropped to 12 percent. All three categories of reserve additions—revisions, improved recovery, and extensions and discoveries—declined in 2004, but the drop in reserve revisions had the largest impact. For the first time in the FRS survey, companies' negative revisions were larger than their positive revisions. The lower reserve additions reduced oil's end-of-year reserves level to 10.6 years of production at the 2004 rate. The reserves-to-production ratio for natural gas, on the other hand, rose to 12.1 years. (The reserves-to-production ratio is the number of years that proved reserves would last at current production rates.) Both total oil production and total natural gas production of the FRS companies for all regions declined about 1.3 percent in 2004 over 2003.

Average finding costs for FRS companies across all regions increased 26 percent in the 2002–2004 period relative to the 2001–2003 period, to \$9.18 per barrel of oil equivalent (boe). The large negative reserve revisions resulted in expenditures being spread over fewer barrels of reserves, which contributed to the rise in finding costs. Finding costs were significantly higher in the U.S. offshore and Canada. In contrast to the other regions, finding costs in the U.S. onshore fell 22 percent in the 2002–2004 period relative to the 2001–2003 period, to \$7.18 per boe.

Compared to 2003, the average production (lifting) costs across all regions increased 11 percent in 2004 to \$5.39 per boe for FRS companies. Direct lifting costs increased \$0.35 per boe and production taxes increased \$0.16 per boe. Canada was the only FRS region that had a decline in lifting costs. Production taxes rose in every FRS region except the Organization for Economic Cooperation and Development (OECD) Europe.

The FRS Companies in 2004	
Amerada Hess Corporation	Kerr-McGee Corporation
Anadarko Petroleum Corporation	LYONDELL-CITGO Refining, L.P.
Apache Corporation	Marathon Oil Corporation
BP America, Inc.	Motiva Enterprises, L.L.C.
Burlington Resources, Inc.	Occidental Petroleum Corporation
Chesapeake Energy Corporation	Premcor, Inc.
Chevron Corporation	Shell Oil Company
CITGO Petroleum Corporation	Sunoco, Inc.
ConocoPhillips Company	Tesoro Petroleum Corporation
Devon Energy Corporation	Total Holdings USA, Inc.
Dominion Resources	Unocal Corporation
El Paso Corporation	The Williams Companies, Inc.
EOG Resources, Inc.	Valero Energy Corp.
Equitable Resources, Inc.	XTO Energy, Inc.
Exxon Mobil Corporation	

Note: BP America, Inc., the U.S. subsidiary of BP plc of the United Kingdom, is the FRS respondent. Chevron Corporation was ChevronTexaco Corporation in 2004.

1. Financial and Operating Developments in 2004

The Financial Reporting System (FRS) companies¹ reached record levels in 2004 in several areas of the FRS survey, including net income, return on stockholders' equity, and cash flow from operations.² Capital expenditures increased but did not keep pace with the higher cash flow. The FRS companies used increased cash flow to substantially increase funds to repurchase shares, reduce debt, and, for most companies, raise dividends. Reserve additions for oil were sharply lower, to a large extent because of low end-of-year heavy oil prices. As a result, FRS companies only replaced 12 percent of oil production. Natural gas reserve replacement, on the other hand, reached a record high. Finding and production costs continued to rise, with finding costs affected by the negative reserve revisions for oil.

Net Income and Profitability

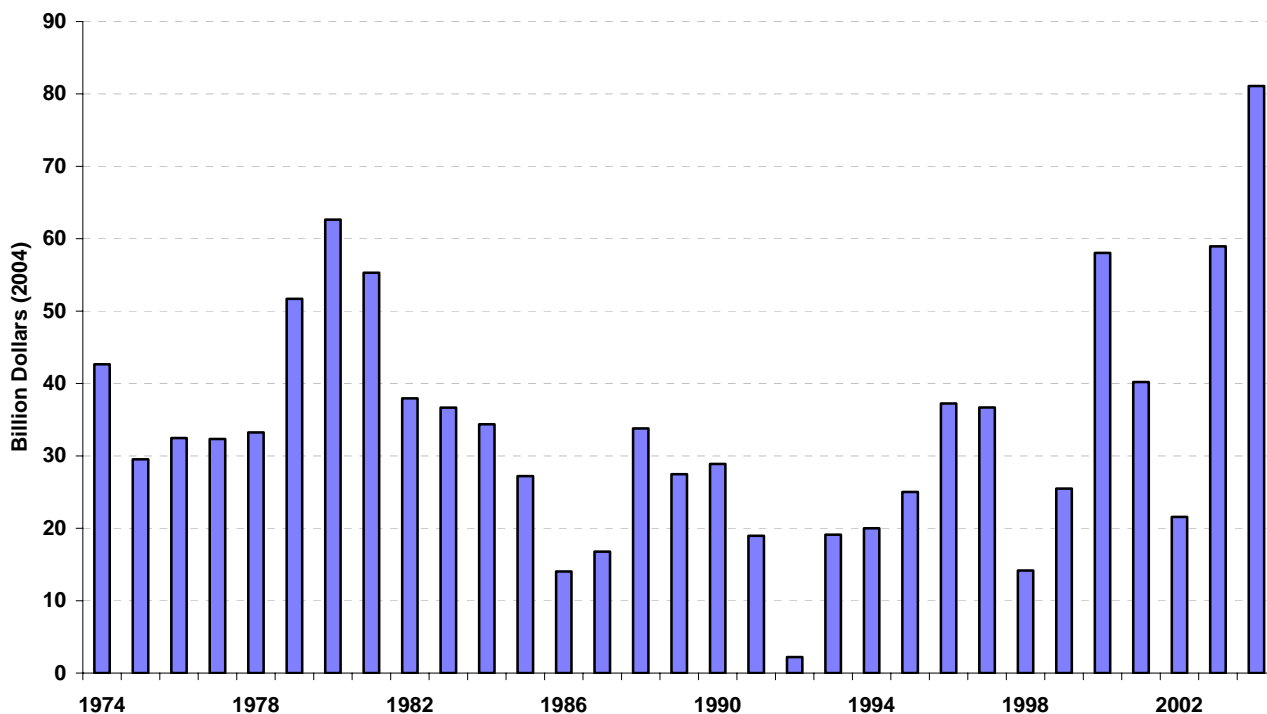
Net income for the FRS companies increased 41 percent in 2004 to \$81.1 billion dollars (**Table 1**), the highest amount (in constant dollars) in the history of the FRS survey (**Figure 1**).³ Operating revenues and operating expenses also reached the highest levels ever recorded by the survey. Operating revenues jumped 28 percent on sharp increases in crude oil, natural gas, and petroleum product prices (see the market summary section in Chapter 2). Operating expenses rose by 26 percent as higher prices stimulated activity in exploration and development and pushed up refinery operating expenses. The larger increase in revenues resulted in a 50-percent jump in operating income to \$122 billion in 2004. Excluding unusual items,⁴ net income rose 44 percent to \$82.8 billion.

Income Statement Items	FRS Companies			S&P Industrials		
	2003	2004	Percent Change 2003-2004	2003	2004	Percent Change 2003-2004
Operating Revenues	881.2	1127.7	28.0	5,109.7	5,728.9	12.1
Operating Expenses	799.7	1005.3	25.7	4,552.6	5,059.2	11.1
Operating Income (Revenues minus Expenses)	81.6	122.4	50.1	557.1	669.7	20.2
Interest Expense	-8.8	-10.9	24.8	-101.7	-99.7	-1.9
Other Revenue (Expense)	16.9	17.9	6.0	-18.2	-36.3	99.3
Income Tax Expense	-32.3	-48.4	49.7	-144.2	-177.9	23.4
Net Income	57.4	81.1	41.2	293.1	355.8	21.4
Net Income Excluding Unusual Items	57.6	82.8	43.7	NA	NA	

Note: Sum of components may not equal total due to independent rounding. Percent changes were calculated from unrounded data.
NA= not available.

Sources: **FRS Companies:** Energy Information Administration Form EIA-28 (Financial Reporting System); **S&P Industrials:** Compustat PC Plus, a service of Standard and Poor's.

Figure 1. FRS Net Income, 1974-2004



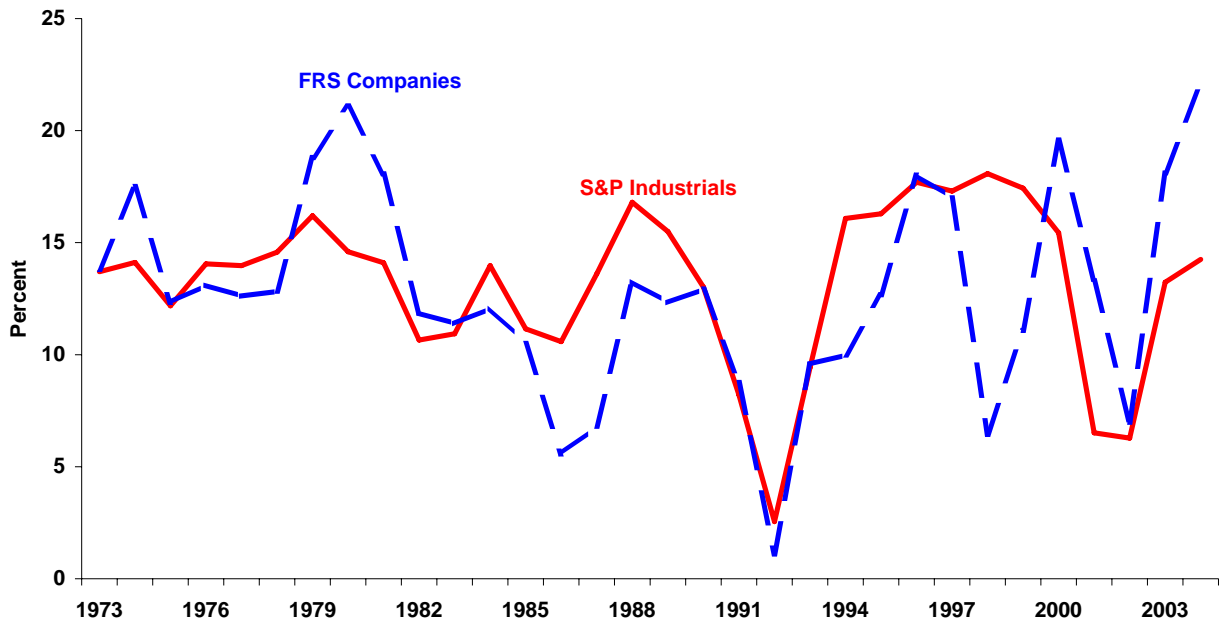
Note: The FRS group of companies has changed incrementally over the years. See endnote 2.
 Source: FRS Companies: Energy Information Administration Form EIA-28, (Financial Reporting System).

Profitability—a measure of a company’s or an industry’s net income relative to the equity or capital provided by its investors—rose to 22.1 percent, surpassing the previous peak of 21.1 percent in 1980 (**Figure 2**). The return on stockholders’ equity for the FRS companies has been substantially higher than that of the Standard & Poor’s (S&P) Industrial companies for 4 of the past 5 years (**Figure 3**), a trend not seen since the high-price period of 1979 to 1981.

Among the FRS companies’ lines of business and business segments,⁵ oil and natural gas production continued to be the most profitable, contributing \$59 billion in net income (**Table 2**). Refining/marketing had the largest percentage increase from 2003, providing \$22 billion in earnings. Net income for the nonenergy line of business rose substantially to \$4 billion, the highest net income for this line of business since 1997. Sharply higher earnings in chemical business segments were the primary reason for the increase in nonenergy income. Exxon Mobil reported record earnings for their chemical operations, led by their high-volume commodity chemical portfolio, including olefins, polyethylene, polypropylene, and aromatics.⁶

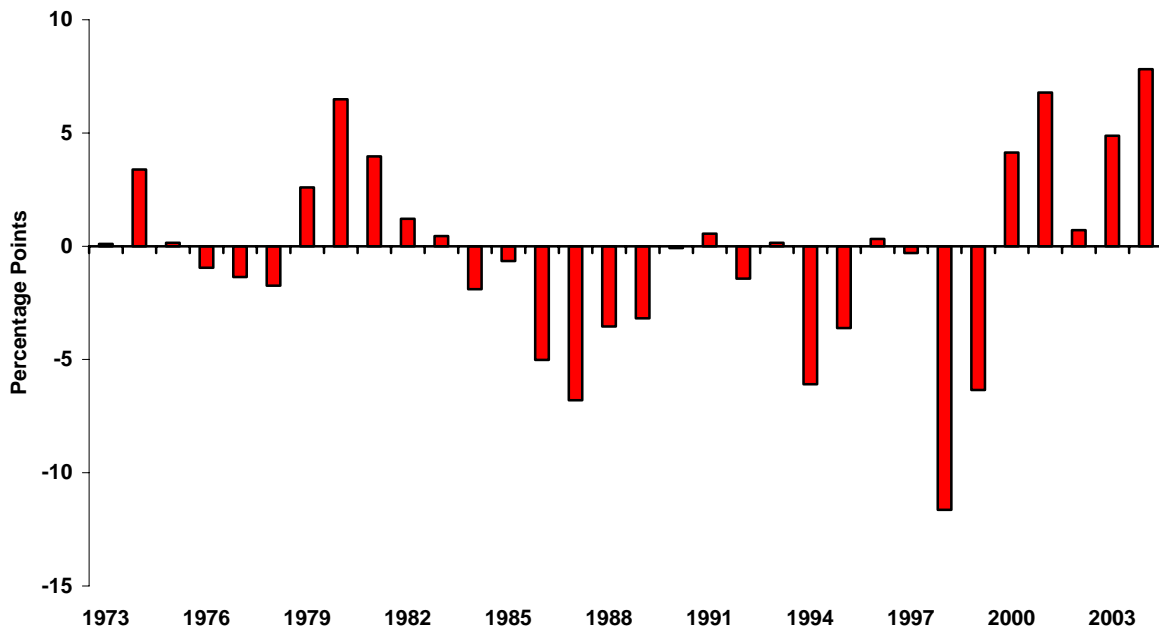
Net income for the oil and natural gas production segment increased 34 percent in 2004. The \$59 billion in earnings was \$13 billion higher (in constant 2004 dollars) than the previous peak in 1981. Natural gas is a growing proportion of FRS company production, having reached 48 percent of production (in barrels of oil equivalent) in both 2003 and 2004. With record high natural gas wellhead prices, natural gas’ contribution to upstream revenues has become increasingly important. Return on net investment in place (ROI)⁷ for the oil and natural gas production segment increased to 18.6 percent, also the highest since

Figure 2. Return on Stockholders' Equity for FRS Companies and the S&P Industrials, 1973-2004



Sources: **FRS Companies:** Energy Information Administration, Form EIA-28 (Financial Reporting System). **S&P Industrials:** Compustat PC Plus, a service of Standard and Poor's.

Figure 3. Difference Between FRS and S&P Return on Stockholders' Equity, 1973-2004



Sources: **FRS Companies:** Energy Information Administration, Form EIA-28 (Financial Reporting System). **S&P Industrials:** Compustat PC Plus, a service of Standard and Poor's.

1981. From 2000 to 2004, the domestic oil and natural gas production segment of the FRS companies provided higher net income and higher ROI than the foreign segment (**Figure 4**).

Table 2. Contributions to Net Income by Line of Business for FRS Companies, 2003-2004
(Million Dollars)

Line of Business	Net Income			Net Income Excluding Unusual Items		
	2003	2004	Percent Change 2003-2004	2003	2004	Percent Change 2003-2004
Petroleum						
U.S. Petroleum						
Oil and Gas Production	22,630	30,361	34.2	23,085	30,265	31.1
Refining/Marketing	7,434	14,796	99.0	7,832	15,351	96.0
Pipelines	827	537	-35.1	838	540	-35.5
Total U.S. Petroleum	30,891	45,694	47.9	31,755	46,157	45.4
Foreign Petroleum						
Oil and Gas Production	21,334	28,589	34.0	21,606	28,113	30.1
Refining/Marketing ^a	2,916	7,310	150.7	3,039	7,298	140.1
Total Foreign Petroleum	24,250	35,902	48.0	24,645	35,414	43.7
Total Petroleum	55,141	81,596	48.0	56,400	81,571	44.6
Downstream Natural Gas	3,603	3,224	-10.5	2,519	3,601	43.0
Electric Power	959	639	-33.4	1,686	1,061	-37.1
Other Energy ^b	115	1,067	827.8	114	1,015	790.4
Nonenergy	934	4,239	353.9	2,198	4,831	119.8
Total Allocated	60,752	90,765	49.4	62,917	92,079	46.3
Nontraceable ^c	-3,325	-9,678	--	-5,268	-9,246	--
Consolidated Net Income ^d	57,427	81,087	41.2	57,649	82,832	43.7

^aInternational Marine is included in Refining/Marketing.

^bThe Other Energy line of business includes coal, nuclear, and non-conventional energy.

^cRevenues and expenses that cannot be directly attributed to a line of business.

^dThe total amount of unusual items was -\$222 million and -\$1745 million in 2003 and 2004, respectively.

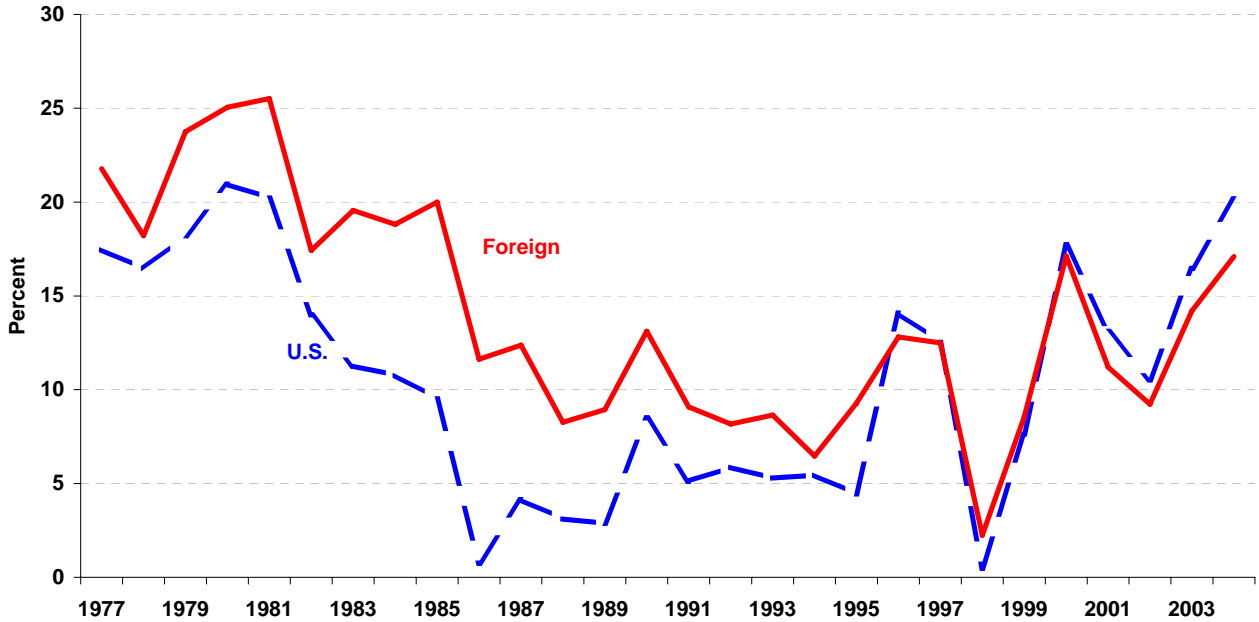
-- = Not meaningful.

NA = Not available.

Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

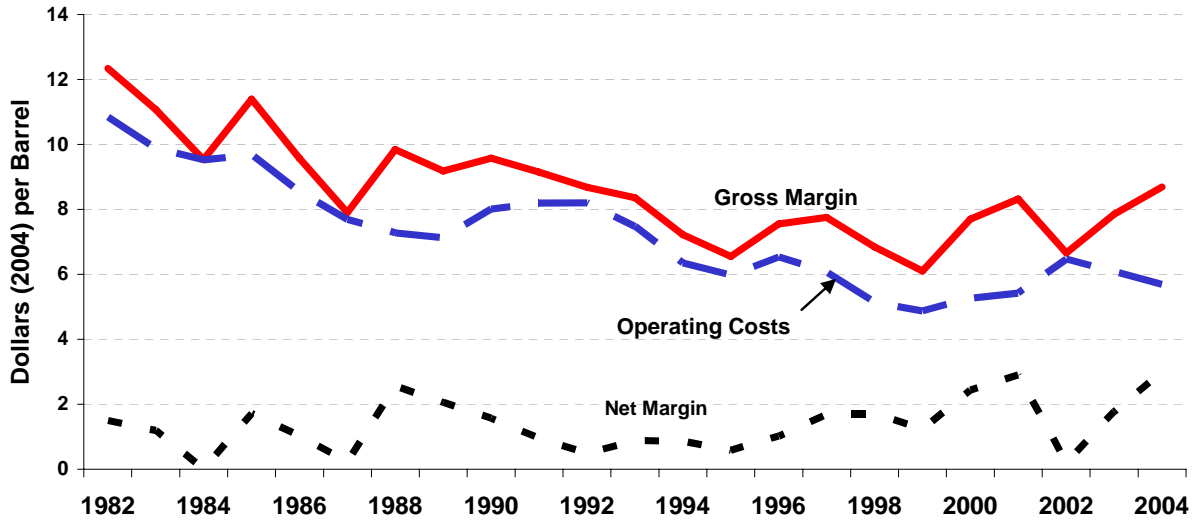
Net income for the FRS companies' refining/marketing segment jumped 113 percent in 2004. Refining/marketing has become a significant contributor to net income as higher demand for petroleum products pushed prices up by more than the increased costs of crude oil. The domestic refining/marketing gross margin⁸ increased to \$8.69 per barrel (21 cents per gallon) in 2004, the highest (in constant 2004 dollars) since 1991 (**Figure 5**). Operating costs declined (on a per-barrel basis), resulting in a net refined product margin of \$2.99 per barrel (7 cents per gallon) in 2004, the highest in the history of the FRS survey. Both domestic and foreign ROI exceeded 18 percent in 2004 (**Figure 6**), yielding an overall refining/marketing ROI of 18.3 percent, which was also the highest in the history of the FRS survey.

Figure 4. Return on Net Investment in Place for U.S. and Foreign Oil and Gas Production, 1977-2004



Source: Energy Information Administration Form EIA-28 (Financial Reporting System).

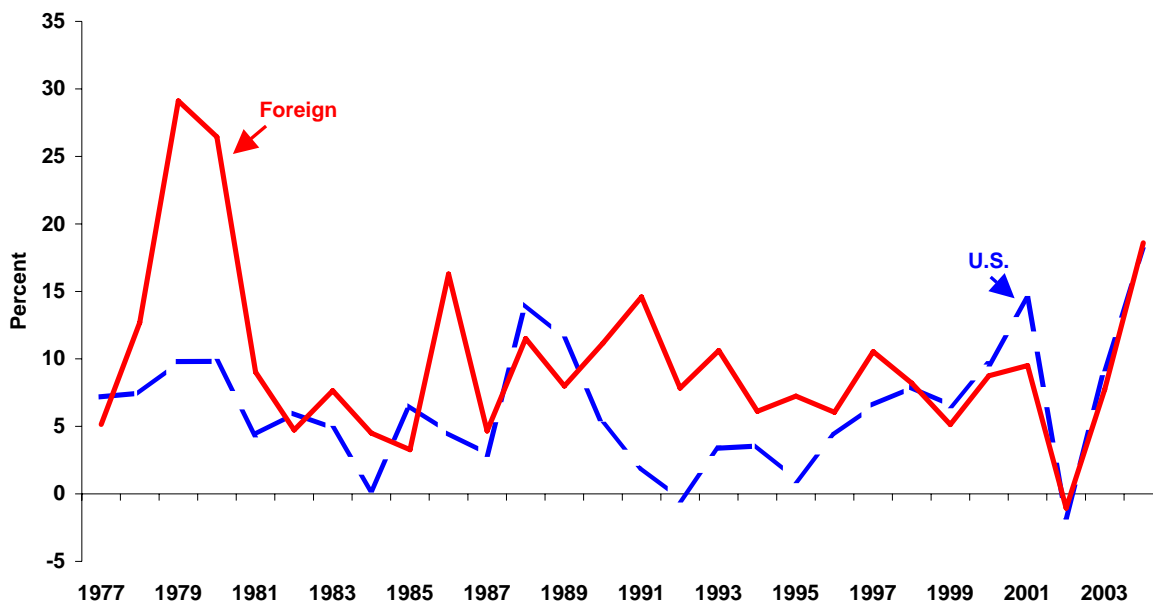
Figure 5. U.S. Refined Product Margins and Costs per Barrel of Petroleum Product Sold for FRS Companies, 1982-2004



Note: The gross margin is refined product revenues less raw material cost and product purchases divided by refined product sales volume.

Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

Figure 6. Return on Net Investment in Place for U.S. and Foreign Refining and Marketing, 1977-2004



Source: Energy Information Administration Form EIA-28 (Financial Reporting System).

Sources and Uses of Cash

Cash flow from operations⁹ for FRS companies increased in 2004 to \$136 billion (**Table 3**), \$31 billion higher than 2003 and \$41 billion higher than the average amount from 2000 to 2003. The largest increases were in net income; depreciation, depletion, and allowance (DD&A); and other non-cash items (**Table B-11**). Oil and natural gas production contributed more than 70 percent of cash flow from operations (on a pre-tax basis) (**Table 4**).

In addition to funds from operations, FRS companies raised cash through disposals of assets, increasing the amount of cash from this source by 22 percent over 2003. The high-price environment encouraged some companies to sell off non-core assets and to refocus on core areas. Chevron noted that they were able to complete virtually all of their planned asset sales, taking advantage of favorable market conditions to sell non-strategic producing properties.¹⁰ Anadarko announced a refocused strategy in June 2004 that included asset realignment and resulted in over \$3 billion in pre-tax asset sales.¹¹

The largest use of cash was for capital expenditures (measured as additions to investment in place), although the increase was considerably smaller than the increase in cash flow from operations. Capital expenditures increased by \$6.6 billion in 2004 to \$86.5 billion. The next section discusses these expenditures in greater detail.

Dividends to shareholders were the second largest use of cash. In total, FRS companies' dividends to shareholders declined from the 2003 amount. The total, however, was significantly influenced by a large decrease by one respondent. Only three companies reported decreases; all other FRS companies increased dividends in 2004.

FRS companies also used cash to reduce long-term debt, but at a slower pace than in 2003. This use of cash was down 30 percent from 2003. Proceeds from issuing long-term debt also fell 30 percent as higher

Table 3. Sources and Uses of Cash for FRS Companies, 2003-2004
(Billion Dollars)

Sources and Uses of Cash	2003	2004	Absolute Change 2003-2004	Percent Change 2003-2004
Main Sources of Cash				
Cash Flow from Operations	105.1	135.8	30.7	29.2
Proceeds from Long-Term Debt	26.4	18.5	-7.8	-29.7
Proceeds from Disposals of Assets	16.1	19.7	3.6	22.2
Proceeds from Equity Security Offerings	8.4	8.1	-0.3	-3.2
Main Uses of Cash				
Additions to Investment in Place	80.0	86.5	6.6	8.2
Reductions in Long-Term Debt	26.2	18.4	-7.8	-29.8
Dividends to Shareholders	42.8	36.5	-6.3	-14.6
Purchase of Treasury Stock	6.1	14.0	8.0	131.2
Other Investment and Financing Activities, Net	7.9	-5.5	-13.4	-169.5
Net Change in Cash and Cash Equivalents	8.8	21.2	12.4	140.7
Note: Sources minus uses plus other investment and financing activities (net) may not equal net change in cash and cash equivalents due to independent rounding.				
Percent changes were calculated from unrounded data.				
Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).				

cash flow from operations reduced the need for debt financing. Overall, the ratio of long-term debt to stockholders' equity for FRS companies fell in 2004 to 45.3 percent, well below the level of the S&P Industrials (**Figure 7**).

FRS companies significantly increased the cash used to repurchase their own stock. Purchases of treasury stock more than doubled as many companies utilized stock buyback programs to distribute value to shareholders.

The overall uses of cash did not keep up with increases in cash flow, resulting in a substantial increase in cash balances and cash equivalents to \$21.2 billion in 2004 from \$8.8 billion in 2003.

Capital Expenditures

The FRS companies' capital expenditures (measured as Additions to Investment in Place)¹² increased 8 percent to \$86.5 billion in 2004 (**Table 5**). Oil and natural gas production (domestic and foreign combined) comprised 68 percent of the total, while total petroleum accounted for 86 percent of capital expenditures.

Along with capital expenditures, FRS companies report exploration, development, and production (E&P) expenditures for the oil and natural gas production segment. Current expenditures as well as capital expenditures are included in the data, but capital expenditures are predominant. Regional breakdowns are also provided.¹³ Exploration and development expenditures provide insight into the regional targets of upstream investment by FRS companies.

Expenditures for E&P have tended to follow changes in cash flow from operations. The recent surge in cash flow from operations, however, has not resulted in a similar increase in E&P expenditures (**Figure**

Table 4. Line-of-Business Contributions to Pretax Cash Flow, Income Taxes, and Cash Flow for FRS Companies, 2003-2004
(Billion Dollars)

Contribution to Pretax Cash Flow ^a	2003	2004	Absolute Change 2003-2004	Percent Change 2003-2004
Petroleum				
Oil and Gas Production	96.6	124.2	27.6	28.6
Refining, Marketing, and Transport	23.7	37.5	13.8	57.9
Downstream Natural Gas	5.4	5.6	0.1	2.6
Electric Power	2.6	2.2	-0.4	-16.6
Other Energy ^b	0.6	1.2	0.6	90.0
Chemicals	1.6	6.1	4.5	289.2
Other Nonenergy	1.5	-0.4	-1.9	-123.9
Nontraceable	-5.0	-4.7	0.3	--
Total Contribution to Pretax Cash Flow ^a	127.1	171.6	44.5	35.0
Current Income Taxes	-26.3	-44.7	--	69.7
Other (Net)	4.4	9.0	4.6	105.2
Cash Flow from Operations	105.1	135.8	30.7	29.2

^aDefined as the sum of operating income, depreciation, depletion, and amortization, and dry hole expense.

^bThe Other Energy line of business includes coal, nuclear, and non-conventional energy.

-- = Not meaningful.

Note: Sum of components may not equal total due to independent rounding. Percent changes were calculated from unrounded data.

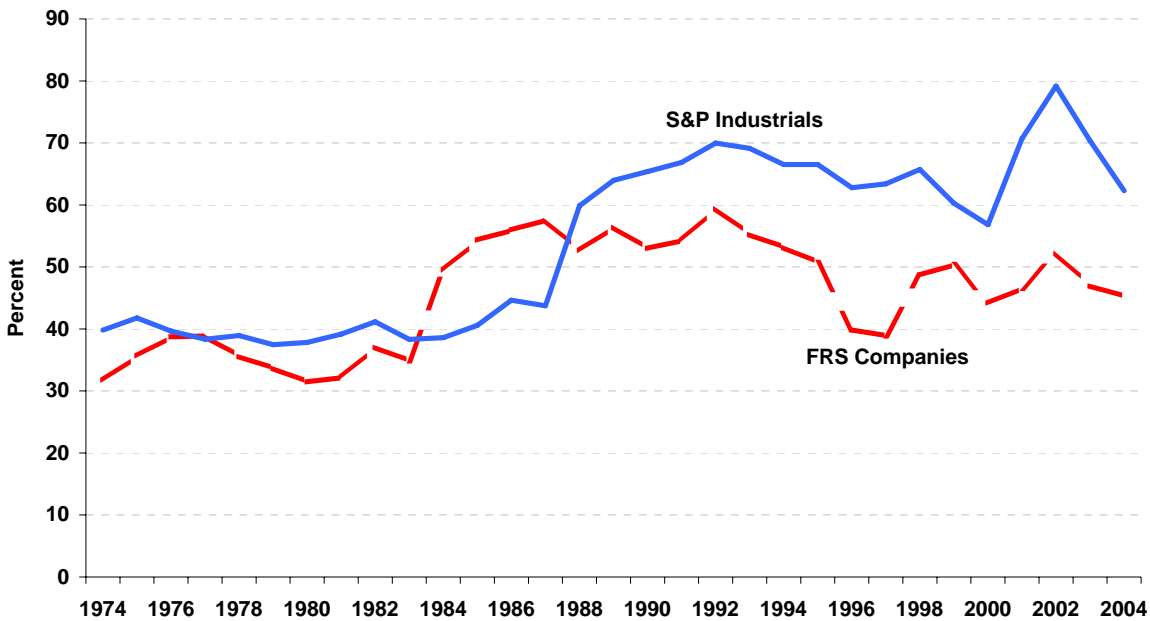
Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

8). Some of the reasons given that companies have not maintained investments at the same rate as increases in cash flow include limited access to the best prospects, higher tax pressure on oil companies by producing-country governments, shortage of qualified personnel, and strains on the supply of drilling rigs.¹⁴ Furthermore, Total's Chief Executive Thierry Desmarest stated that the company, like most other majors, would not raise its benchmark of \$25 per barrel for assessing the profitability of potential new upstream projects even though much of the industry accepted that prices would likely plateau above \$40 per barrel. Total is taking a conservative approach because of spiraling costs in the oil services industry.¹⁵ Rapidly rising day rates (rates that oil companies pay for drilling rig services), however, also indicate that oil companies have been more willing to increase spending in recent quarters.¹⁶

Total exploration expenditures by FRS companies across all regions increased slightly in 2004 to \$8.4 billion, but remained well below the levels of the early 1980s (**Figure 9**). Development expenditures rose 5.1 percent to \$38.4 billion, the highest level since 1982 (in constant 2004 dollars). Higher prices have encouraged oil and natural gas producers to develop known reserves to increase production, but, as indicated above, many have been hesitant to raise exploration budgets, basing investment decisions on crude oil prices that are far below current levels.

Regionally, despite its maturity as an oil- and natural gas-producing region, the U.S. onshore continues to receive more exploration and development expenditures than any other FRS region. Exploration expenditures increased slightly in 2004 (**Figure 10**), but they were at the fourth lowest level since 1981. The 4 lowest years of exploration expenditures have occurred since 1999. Expenditures for development predominate in the U.S. onshore region: they rose to \$12.1 billion in 2004, nearly twice the level of any other FRS region (**Figure 11**).

Figure 7. Long-Term Debt/Equity Ratio for FRS Companies and the S&P Industrials, 1974-2004



Sources: **FRS Companies:** Energy Information Administration Form EIA-28, (Financial Reporting System).
S&P Industrials: Compustat PC Plus, a service of Standard and Poor's.

EOG Resources continues to expand its presence in the U.S. onshore, noting that it has large potential plays under way in Wyoming, Utah, Texas, and Oklahoma. EOG made significant discoveries in the Barnett Shale trend in 2004 and plans to increase production and further define the play's ultimate size in 2005.¹⁷ Chesapeake Energy Corporation has become the most active driller in the U.S. Mid-Continent, focusing on both finding significant new natural gas reserves and developing existing proved reserves. While natural gas production in the United States has stagnated, Chesapeake has increased production for 14 consecutive quarters. They have acquired rights to 3-D seismic data for 9.9 million acres, and have identified more than 7,000 exploratory and developmental drill sites, representing more than 7 years of future drilling opportunities.¹⁸

From 1992 to 2004, FRS companies put more exploration expenditures into the U.S. offshore region than any other FRS region, although the annual amount declined since 2000. Exploration and development expenditures in the U.S. offshore region declined 7 percent in 2004, which may have been due in part to project delays as a result of Hurricane Ivan. The deepwater Gulf of Mexico is BP's largest area of growth in the United States. BP continued development of Thunder Horse and Atlantis in 2004. Production began from the Holstein field in December 2004 and from the Mad Dog field in January 2005. These four projects are expected to contribute significantly to production growth in the next several years.¹⁹ Chevron views the U.S. Gulf of Mexico as a major exploration area. The company completed a successful well test in 4,100 feet of water and 25,800 feet subsea, the deepest yet in the U.S. Gulf of Mexico. Chevron estimates that their Tahiti field contains 400 to 500 million barrels of oil equivalent that are ultimately recoverable.²⁰ Apache purchased Anadarko's properties (**Table 6**) located on the continental shelf of the U.S. Gulf of Mexico in 2004, making Apache the largest acreage holder on the shelf, and opened up additional drilling prospects for the years ahead.²¹ Anadarko continued to work in the deepwater areas of the U.S. Gulf of Mexico. Their first deepwater project, Marco Polo, started production in July 2004. Development plans for a natural gas processing hub and a natural gas pipeline in the eastern Gulf of

**Table 5. Additions to Investment in Place by Line of Business
for FRS Companies, 2003-2004
(Billion Dollars)**

Lines of Business	2003	2004	Percent Change 2003-2004	Percent Change Excluding Mergers and Acquisitions 2003-2004
Petroleum				
U.S. Petroleum				
Production	25.6	29.0	13.0	11.6
Refining/Marketing				
Refining	6.8	8.1	18.3	12.8
Marketing	2.0	1.3	-33.9	-36.2
Transport	1.2	1.5	28.9	28.9
Total Refining/Marketing	10.0	10.9	9.3	5.2
Pipelines	0.5	2.0	291.1	291.1
Total U.S. Petroleum	36.2	41.9	16.0	14.5
Foreign Petroleum				
Production	26.3	29.8	13.3	27.5
Refining/Marketing ^a	2.8	2.9	6.6	-11.3
Total Foreign Petroleum	29.1	32.7	12.7	23.4
Total Petroleum	65.2	74.7	14.5	18.7
Downstream Natural Gas	6.8	5.5	-19.1	-19.1
Electric Power	2.3	1.4	-40.2	-38.9
Other Energy ^b	0.7	0.8	8.2	8.2
Chemicals	2.9	2.5	-14.1	-26.5
Other Nonenergy	0.7	-0.1	-107.9	-126.9
Nontraceable ^c	1.3	1.8	32.1	32.1
Additions to Investment in Place ^d	80.0	86.5	8.2	10.0
Additions Due to Mergers and Acquisitions	9.8	9.4	-4.8	
Total Additions Excluding Mergers and Acquisitions	70.1	77.2	10.0	

^aInternational Marine is included in Refining/Marketing.

^bThe Other Energy line of business includes coal, nuclear, and non-conventional energy.

^cInvestments that cannot be directly attributed to a line of business.

^dAdditions to investment in place = additions to property, plant, and equipment, plus additions to investments and advances.

-- = Not meaningful.

NA = Not available.

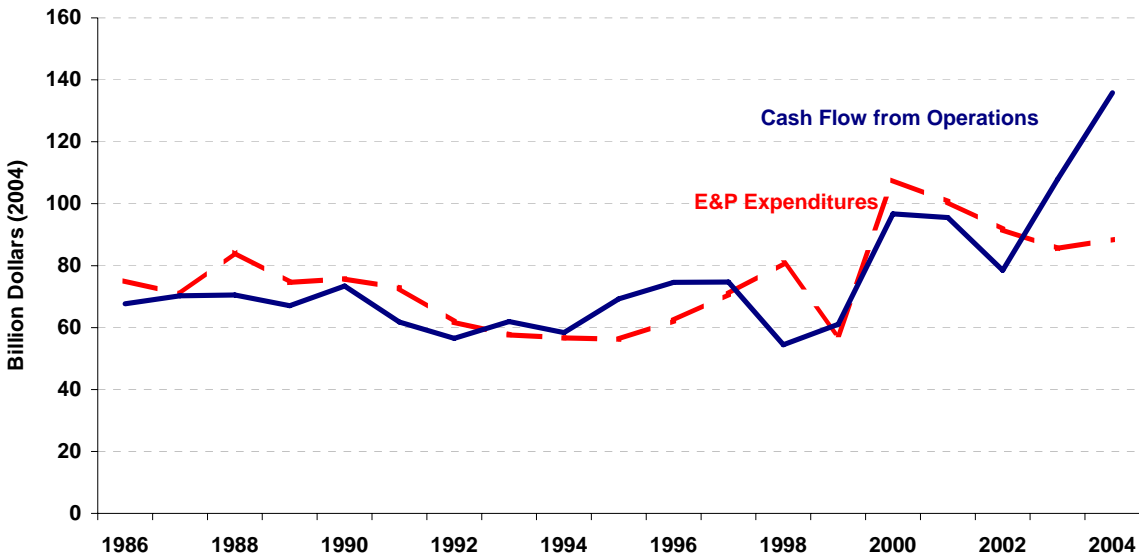
Note: Sum of components may not equal total due to independent rounding. Percent changes were calculated from unrounded data.

Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

Mexico were approved in late 2004. Also in 2004, Anadarko completed reprocessing seismic and identified potential prospects in deepwater blocks in the western Gulf of Mexico.²²

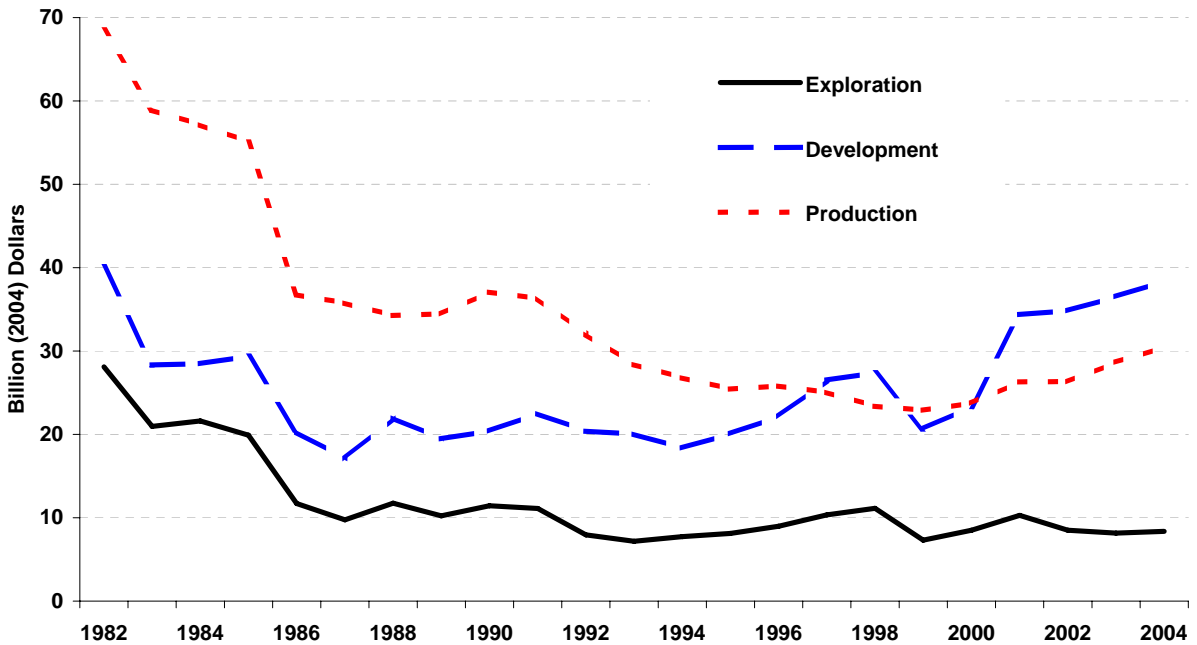
2004 exploration and development expenditures in foreign FRS regions did not change significantly from 2003. For the past 2 years, FRS companies have put more exploration and development expenditures into Africa than any other foreign region (**Figure 10 and Figure 11**). Exxon Mobil continues to expand exploration and development activities in several countries in Africa, with acreage ranging from onshore to deepwater. Fourteen deepwater exploration wells were completed in West Africa in 2004. Initial

Figure 8. Cash Flow from Operations and Exploration and Production (E&P) Expenditures for FRS Companies, 1986-2004



Note: E&P expenditures includes exploration, development, production, unproved acreage, and proved acreage expenditures.
 Source: **FRS Companies:** Energy Information Administration Form EIA-28, (Financial Reporting System).

Figure 9. FRS Worldwide Expenditures for Exploration, Development, and Production, 1982-2004

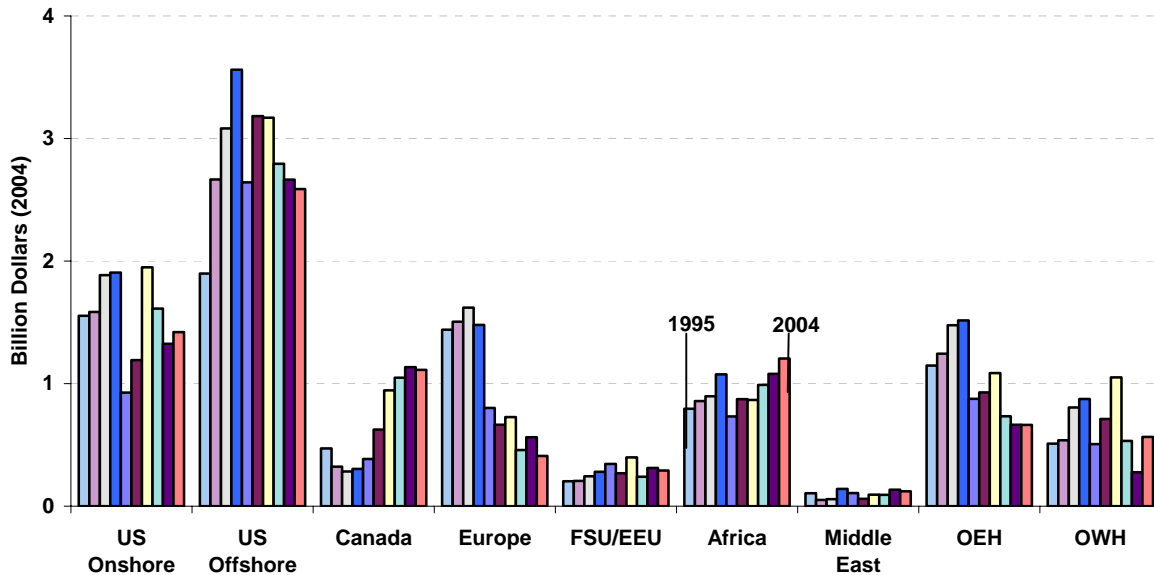


Source: Energy Information Administration Form EIA-28 (Financial Reporting System).

production from the Kizomba A project in Angola began in August 2004.²³ Chevron is the largest producer of crude oil and liquefied petroleum gas in Angola and is embarking on a major development program to significantly increase production after 2005. Chevron also drilled four development wells in the deepwater Agbami project in Nigeria, and is involved in several other exploration and development projects.²⁴

Canada continues to receive considerable interest from FRS companies (**Figure 10 and Figure 11**). Exploration and development expenditures increased from \$1.8 billion in 1998 to \$5.0 billion in 2004. ConocoPhillips is one of the largest oil and natural gas producers in Canada, with conventional oil and natural gas holdings in Alberta, northeastern British Columbia, and southwestern Saskatchewan.

Figure 10. FRS Expenditures for Oil and Natural Gas Exploration by Region, 1995-2004



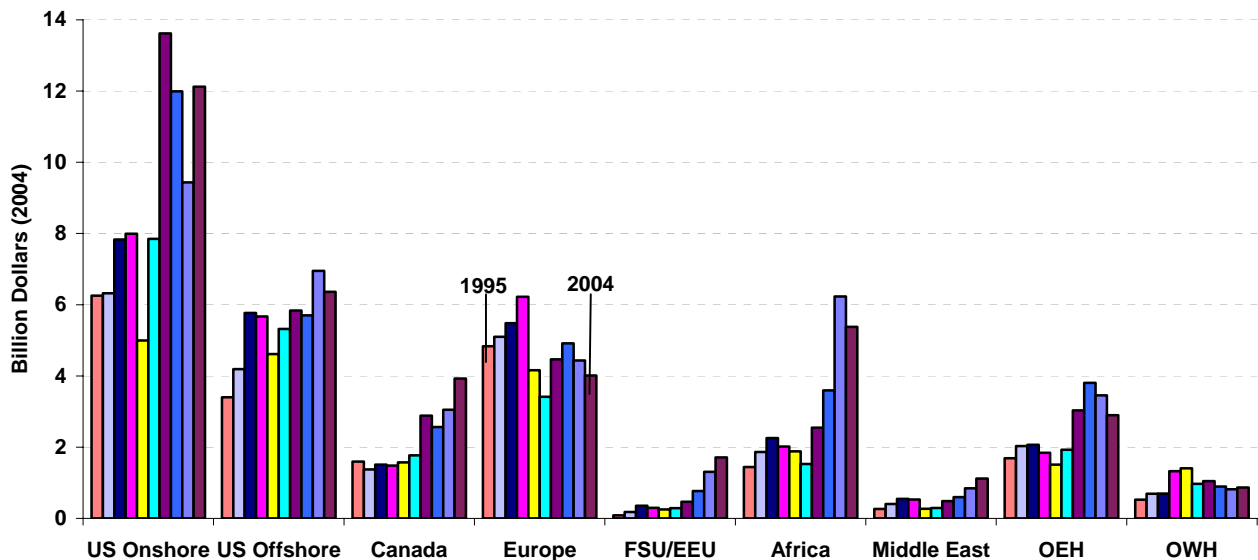
Note: FSU/EEU is former Soviet Union and Eastern Europe. OEH is Other Eastern Hemisphere, which is primarily the Asia-Pacific region. OWH is Other Western Hemisphere, which is primarily Central and South America and the Caribbean.

Source: Energy Information Administration Form EIA-28 (Financial Reporting System).

ConocoPhillips also has exploration acreage in eastern Canada, the foothills of western Alberta, and the MacKenzie Delta/Beaufort Sea area.²⁵ Devon's Canadian production increased 4 percent in 2004 and their reserve additions from drilling and performance revisions were nearly double their production amount. Devon maintains a large exploration portfolio with eight million net undeveloped acres in western Canada.²⁶

Capital expenditures by the FRS companies for refining and marketing increased 9 percent in 2004 from 2003 (**Table 5**). Three refineries were exchanged within the FRS group: Premcor acquired Motiva's Delaware City refinery, Sunoco acquired the Eagle Point refinery from El Paso, and Valero acquired El Paso's Aruba refinery. FRS companies acquiring refining assets cited the increased capability to process heavier (and thus cheaper) crude oil as a driving force in the acquisition. (See the U.S. refining/marketing section in Chapter 3.) Premcor indicated that its ability to process heavier, higher-sulfur crude oil increased to an average of 56 percent of total throughput with the purchase of the Delaware City refinery.²⁷ Valero reported that the purchase of the Aruba refinery, which processes heavy, sour crude oil, contributed approximately \$290 million to their operating income in 2004. They also noted that a coker unit, which was added to their Texas City refinery in December 2003 to process heavier, lower-cost crude

Figure 11. FRS Expenditures for Oil and Natural Gas Development by Region, 1995-2004



Note: FSU/EEU is former Soviet Union and Eastern Europe. OEH is Other Eastern Hemisphere, which is primarily the Asia-Pacific region. OWH is Other Western Hemisphere, which is primarily Central and South America and the Caribbean.
Source: Energy Information Administration Form EIA-28 (Financial Reporting System).

oil, generated nearly \$200 million in operating income in 2004.²⁸ ConocoPhillips reported that crude oil and coker units acquired in 2003 and integrated into the Wood River refinery in the second quarter of 2004 enable the refinery to process heavier, lower-cost crude oil, which has strengthened and improved its economic position.²⁹

FRS companies continued to report substantial spending to produce cleaner fuels with reduced sulfur content, although several companies indicated that these investments were slowing as projects were being completed. Exxon Mobil reported a decline in downstream capital expenditures, reflecting the completion and start-up of several facilities to produce lower-sulfur gasoline and diesel.³⁰ ConocoPhillips stated that a multi-year, \$2 billion clean fuels initiative was well under way, with domestic expenditures more than one-third complete.³¹ Several companies reported capital expenditures made to meet the ultra-low-sulfur diesel fuel requirements that take effect in 2006. Marathon added a 33,000 barrel per day hydrotreater to the Detroit refinery to meet Tier II clean fuel requirements for gasoline and to produce ultra-low-sulfur diesel fuel.³² Premcor reported that capital expenditures to meet low-sulfur diesel standards increased to \$91 million in 2004 from \$4 million in 2003.³³

Reserve Additions

FRS companies' worldwide reserve additions through drilling (i.e., excluding purchases and sales of reserves) fell sharply in 2004, primarily as a result of large negative reserve revisions for oil.³⁴ The reserve replacement ratio (ratio of reserve additions through drilling to production) for oil dropped to 12 percent, the lowest ever reported in the FRS survey (**Figure 12**). In contrast, the 126 percent reserve replacement ratio for natural gas was the highest ever reported in the FRS survey. For oil and natural gas combined, the reserve replacement ratio fell to 66 percent in 2004. Production losses as a result of Hurricane Ivan reduced production of both crude oil and natural gas in 2004. This contributed to the higher reserve replacement ratio for natural gas, but the large negative reserve revisions for oil negated any effects of lower crude oil production.

**Table 6. Value of Mergers, Acquisitions, and Related Transactions
by FRS Companies, 2004
(Million Dollars)**

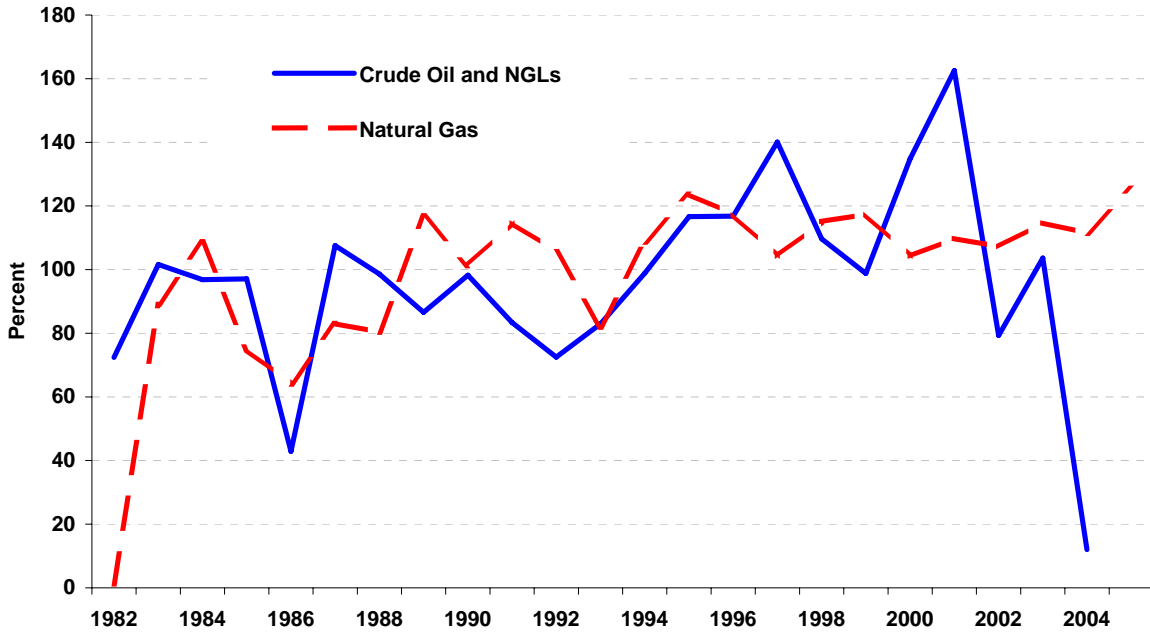
Acquiring Company	Merger or Acquisition	Reported Value of Acquisition
Mergers and Acquisitions between FRS Companies		
XTO	Producing properties from Chevron	930
Premcor	Delaware City refinery from Motiva	800
Apache	Gulf of Mexico properties from Anadarko	525
Valero	Aruba refinery from El Paso	465
Apache	Properties from ExxonMobil	347
XTO	Properties from ExxonMobil	336
Sunoco	Eagle Point refinery from El Paso	249
Sunoco	340 retail outlets from ConocoPhillips	181
Other Acquisitions by FRS Companies		
Kerr McGee	Westport Resources	3,500
ConocoPhillips	Investment in Lukoil	2,723
Chesapeake	Equity interest in Greystone Petroleum LLC	425
Chesapeake	Privately-owned Concho Resources, Inc.	420
Chesapeake	Bravo Natural Resources	335
Motiva	Assets associated with Delaware City refinery	294
Chesapeake	Texas property from Hallwood Energy	292
XTO	Producing properties in Texas and Louisiana	243
XTO	Producing properties in Barnett Shale and Arkoma Basin	223
Chesapeake	Legend Natural Gas	215
ChevronTexaco	Office tower in Houston	129

Sources: Company annual reports to shareholders and press releases.

All three categories of reserve additions—revisions, improved recovery, and extensions and discoveries—declined in 2004 (**Figure 13**),³⁵ but the drop in reserve revisions had the largest impact. For the first time in the FRS survey, companies' negative revisions were larger than their positive revisions. The U.S. Securities and Exchange Commission requires companies to evaluate reserves using prices on the last day of the year; this was noted as one of the primary reasons for the large negative reserve revisions. Prices for heavy crude oil were unusually low at the end of the 2004. Exxon Mobil reported that due to unusually low bitumen prices in Canada on December 31, 2004, proved reserves were reduced by about 500 million barrels of oil equivalent. Prices increased substantially after December 31, which resulted in rebooking of nearly all of these reserves in 2005. Worldwide, Exxon Mobil lowered its proved reserve estimates in 2004 by 800 million barrels because of year-end price revisions.³⁶ The negative reserve revisions had the biggest impact in Canada (**Figure 14**).

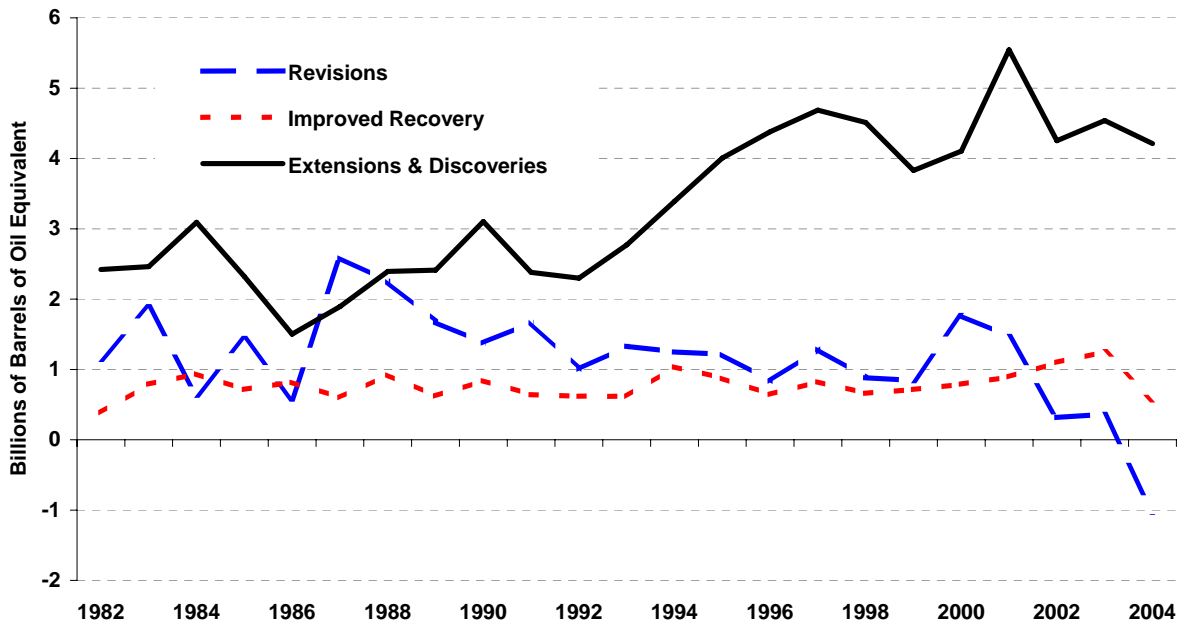
The lower reserve additions reduced oil's end-of-year reserves level (**Figure 15**) to 10.6 years of production at the 2004 rate. The reserves-to-production ratio for natural gas, on the other hand, rose to 12.1 years. Higher natural gas wellhead prices have encouraged exploration and development and kept the natural gas reserves-to-production ratio moving higher, for the most part, since 1997. Oil's reserve-to-production ratio will likely improve as a result of rebooking oil reserves that were affected by the low heavy crude oil prices at the end of 2004.

Figure 12. FRS Reserve Replacement Ratio, 1982-2004



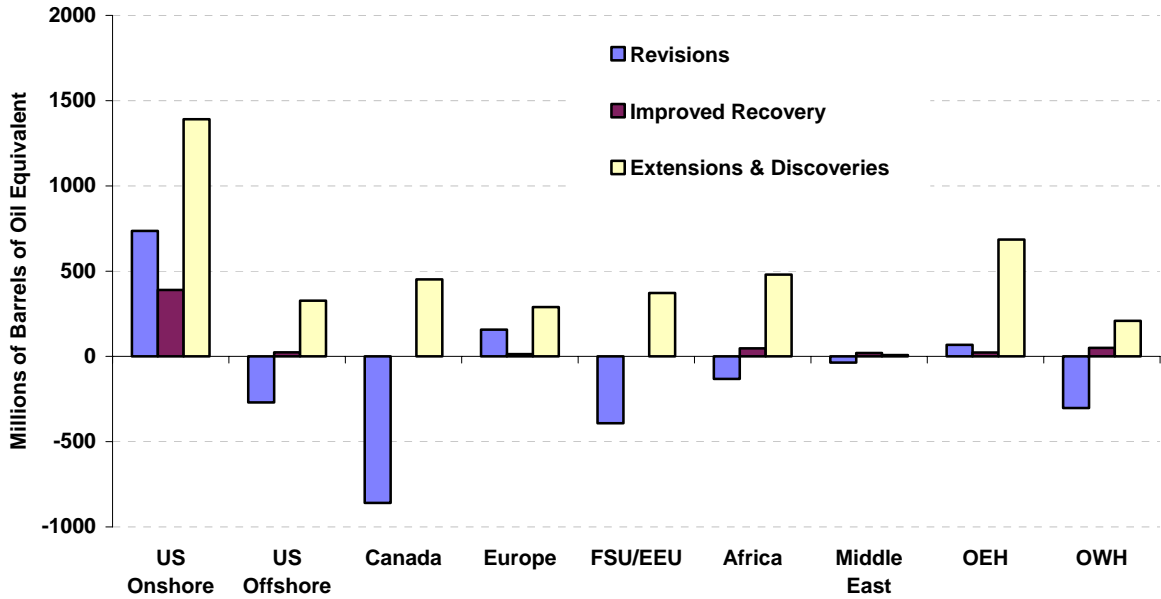
Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

Figure 13. FRS Reserve Additions by Type, 1982-2004



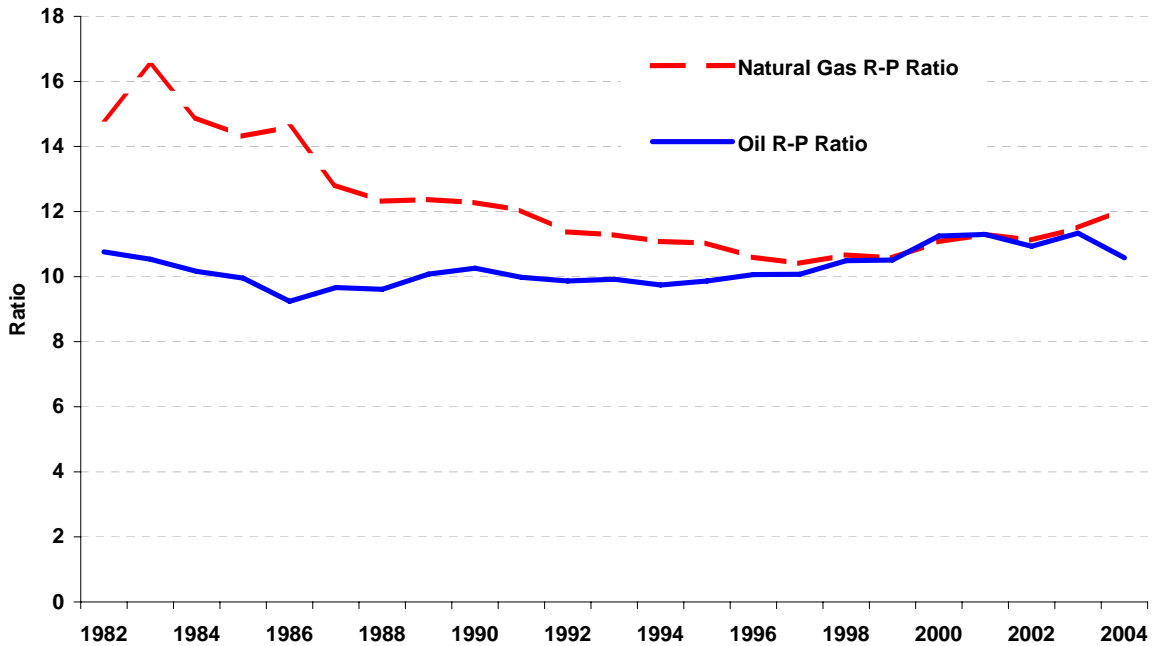
Source: Energy Information Administration Form EIA-28 (Financial Reporting System).

Figure 14. FRS Reserve Additions by Type and by Region, 2004



Note: FSU/EEU is former Soviet Union and Eastern Europe. OEH is Other Eastern Hemisphere, which is primarily the Asia-Pacific region. OWH is Other Western Hemisphere, which is primarily Central and South America and the Caribbean.

Figure 15. FRS Reserve to Production (R-P) Ratio, Oil and Natural Gas, 1982-2004



Source: Energy Information Administration Form EIA-28 (Financial Reporting System).

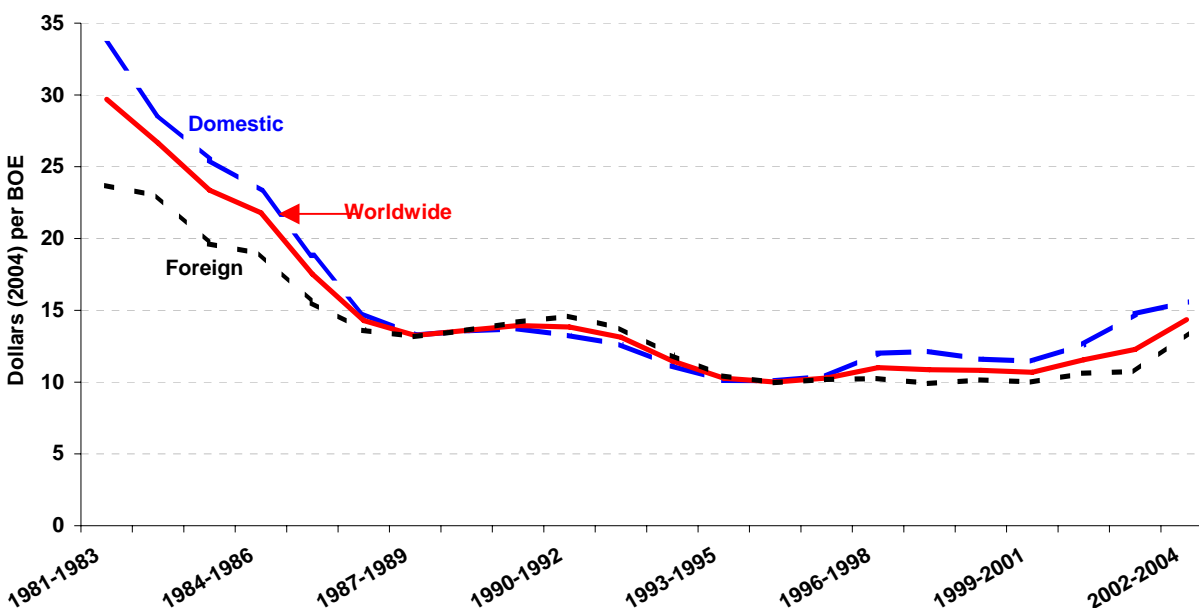
Finding and Production (Lifting) Costs

Average finding costs³⁷ for FRS companies across all regions increased 26 percent in the 2002–2004 period relative to the 2001–2003 period, to \$9.18 per barrel of oil equivalent (boe). The large negative reserve revisions discussed in the previous section resulted in expenditures being spread over fewer barrels of reserves, which contributed to the rise in finding costs. Finding costs were significantly higher in the U.S. offshore and Canada. Reserve additions in both regions declined substantially in 2004 from those of recent years. In contrast to the other regions, finding costs in the U.S. onshore fell 22 percent in the 2002–2004 period relative to the 2001–2003 period, to \$7.18 per boe. The U.S. onshore had the largest increase in reserve additions among the FRS regions (**Figure 14**). See Chapter 3 for a discussion of finding costs.

Production costs (lifting costs)³⁸ increased 11 percent in 2004 to \$5.39 per boe for the FRS average across all regions. Direct lifting costs increased \$0.35 per boe and production taxes increased \$0.16 per boe. Canada was the only FRS region that had a decline in lifting costs. Production taxes rose in every FRS region except OECD Europe. See Chapter 3 for a discussion of lifting costs.

The sum of finding and production costs for FRS companies has increased for both domestic and foreign regions from the low points of the 1990s (**Figure 16**). The average of all regions increased to \$14.35 per boe (constant 2004 dollars) in the 2002–2004 period from its nadir of \$10.00 per boe in the 1994–1996 period.

Figure 16. Domestic, Foreign, and Worldwide Three-Year Finding Plus Production Costs for FRS Companies, 1981-1983 to 2002-2004



Notes: Three-year finding and production costs are the quotient of expenditures and reserve additions for each three-year period. BOE = Barrels of oil equivalent.

Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

Endnotes

¹ The U.S.-based energy companies that respond to FRS Form EIA-28 are considered to be U.S. majors by the Energy Information Administration (see P.L.95-91, Sec. 205 (h)). More information about the FRS companies can be found in the preface of this report, in Chapter 2, in Appendix A, and at <http://www.eia.doe.gov/emeu/finance/page1a.html>.

² See the Brief Description of Financial Terms for explanation of some of the terms used in the publication.

³ The composition of the FRS group of companies changes over time but the changes are usually incremental. A company is added to the survey when, through growth or acquisition, it meets the criteria classifying it as a major energy company. Typically no more than two companies are added to the survey in any given year. The new companies are usually relatively small compared to the existing FRS group, so the effect on the aggregate totals is marginal. The year 1998 was an exception. Because of a change in the FRS criteria, 11 companies were added to the FRS group. Companies rarely exit unless through merger, in which case the assets of the exiting company are absorbed into the surviving company. Thus, despite occasional year-to-year changes in the FRS group composition, comparisons are still meaningful and informative.

⁴ Unusual items include accounting changes, asset dispositions and write-downs, tax adjustments, etc.

⁵ The FRS collects financial and operating information for the combined corporate entity as well as by lines of business within the company. The lines of business in 2004 consisted of petroleum, downstream natural gas (including natural gas liquids processing and natural gas pipelines), electric power, nonenergy, and other energy (including coal, nuclear, renewable fuels, and nonconventional fuels). The petroleum line of business is further segmented into production, refining/marketing, crude and petroleum product pipelines (for domestic petroleum), and international marine transport (for foreign petroleum).

⁶ Exxon Mobil Corporation, *2004 Summary Annual Report*, pp. 27-28.

⁷ Profitability for the consolidated FRS companies can be measured by return on equity, calculated by net income as a percentage of stockholders' equity. Because stockholders' equity is a corporate concept, the lines of business within the company use ROI as a measure of profitability. ROI is defined as net income divided by net investment in place for that segment. Net investment in place consists of the value of property, plant, and equipment net of depreciation plus investments and advances to unconsolidated affiliates.

⁸ The gross margin is refined product revenues less raw material cost and product purchases divided by refined product sales volume.

⁹ Cash flow from operations consists of net income plus expenses that do not require an outlay of cash minus earnings that do not provide a receipt of cash. For energy companies, the largest non-cash item generally is depreciation, depletion, and amortization (DD&A), which is an allowance for the decline in value of property, plant, and equipment (PP&E), based on accounting principles, recorded as a charge against income.

¹⁰ ChevronTexaco Corporation, *2004 Annual Report*, p. 7.

¹¹ Anadarko Petroleum Corporation, 2004 U.S. Securities and Exchange Commission Form 10-K filing, p. 2.

¹² Additions to Investment in Place are defined as additions to property, plant, and equipment (PP&E) plus additions to investments and advances to unconsolidated affiliates.

¹³ The regions for which separate FRS data are collected include U.S. onshore, U.S. offshore, Canada, Organisation for Economic Co-operation and Development (OECD) Europe, former Soviet Union and Eastern Europe, Africa, Middle East, Other Eastern Hemisphere (primarily Asia Pacific), and Other Western Hemisphere (primarily South America).

¹⁴ "IFP notes rising outlays for services, equipment," *Oil and Gas Journal* (October 14, 2005), p. 44.

¹⁵ "Total's Desmarest Defends Cautious Capital Spending Hurdle," *Oil Daily* (September 22, 2005), p. 5.

¹⁶ "Offshore Drillers Line Up Long-Term Rig Deals," *Oil Daily* (November 23, 2005), p. 5.

¹⁷ EOG Resources, Inc., *2004 Annual Report to Shareholders*, page 11.

¹⁸ Chesapeake Energy Corporation, 2004 U.S. Securities and Exchange Commission Form 10-K filing, pp. 3-5.

¹⁹ BP plc, *Annual Report on Form 20-F 2004*, p. 32.

²⁰ ChevronTexaco Corporation, *2004 Annual Report*, p. 12, 22.

²¹ Apache Corporation, *2004 Summary Annual Report*, p. 6.

²² Anadarko Petroleum Corporation, 2004 U.S. Securities and Exchange Commission Form 10-K filing, p. 8.

²³ Exxon Mobil Corporation, *2004 Financial and Operating Overview*, p. 44.

²⁴ ChevronTexaco Corporation, *2004 Supplement to the Annual Report*, p. 18, 21.

²⁵ ConocoPhillips Company, *Fact Book 2004*, p. 9.

²⁶ Devon Energy Corporation, *2004 Annual Report*, p. 12.

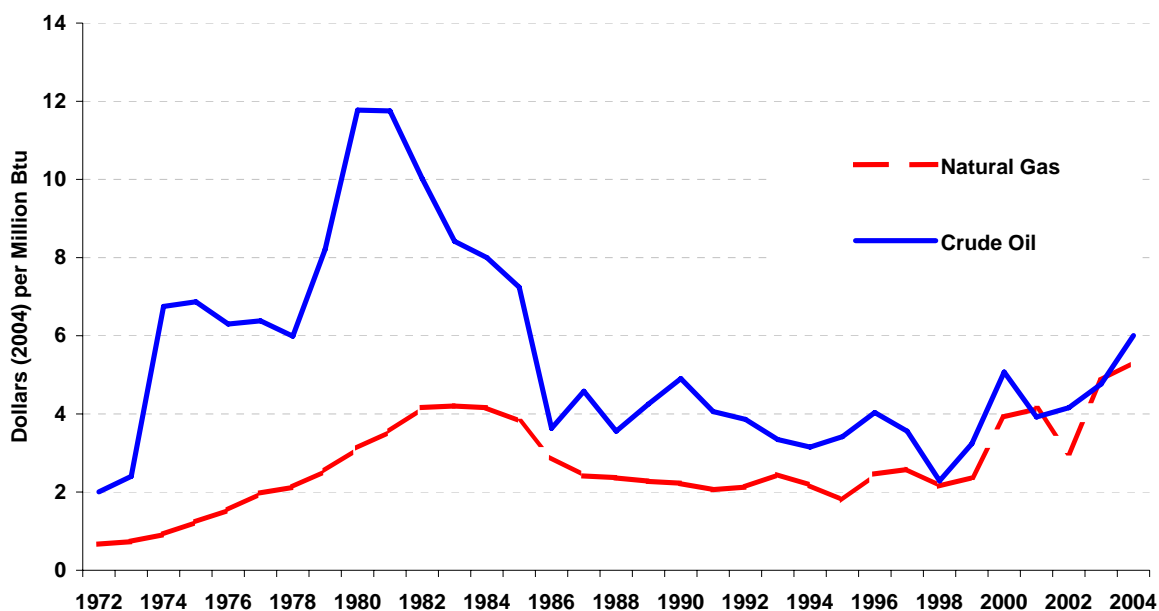
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- ²⁷ Premcor Inc., 2004 U.S. Securities and Exchange Commission Form 10-K filing, p. 4.
- ²⁸ Valero Energy Corporation, 2004 U.S. Securities and Exchange Commission Form 10-K filing, p. 27.
- ²⁹ ConocoPhillips Company, *2004 Annual Report*, p. 15, 48.
- ³⁰ Exxon Mobil Corporation, *2004 Financial and Operating Review*, pp. 65, 69.
- ³¹ ConocoPhillips Company, *2004 Annual Report*, p. 15.
- ³² Marathon Oil Corporation, *2004 Annual Report*, p. 15.
- ³³ Premcor Inc., 2004 U.S. Securities and Exchange Commission Form 10-K filing, p. 54.
- ³⁴ See Chapter 3 for a discussion of FRS companies' reserve additions in the United States. Reserve additions for the United States as a whole are discussed in the Energy Information Administration report *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves 2004 Annual Report*, available on the Internet at http://www.eia.doe.gov/oil_gas/natural_gas/data_publications/crude_oil_natural_gas_reserves/cr.html.
- ³⁵ Extensions and discoveries are those reserves added by extending the proved area of previously discovered reservoirs or by discovery of new fields or reservoirs. Improved recovery refers to reserves resulting from the application of improved recovery techniques. Reserve revisions are changes (upward or downward) made to previous estimates resulting from new information obtained from development drilling and production history or changes in economic factors.
- ³⁶ Exxon Mobil Corporation, 2004 U.S. Securities and Exchange Commission Form 10-K filing, pp. 82-83.
- ³⁷ Finding costs represent the cost of discovering a barrel of oil equivalent and preparing it for production. In the FRS data, they include exploration and development costs and the cost of acquiring unproved acreage. The costs are averaged over 3-year periods to mitigate the problem of expenditures to find oil and natural gas occurring in a different time period than the recognition of the reserves as proved.
- ³⁸ Production costs, also known as lifting costs, include the costs to operate and maintain producing wells and related equipment and facilities.

2. Market Developments and the Financial Reporting System (FRS) Companies in 2004

Petroleum and Natural Gas Markets in 2004

The FRS companies' financial results in 2004 were driven to a large extent by substantially higher prices for crude oil, natural gas, and petroleum products. While crude oil and petroleum product prices remained below the peak levels of 1980–1981 (in constant dollars), natural gas wellhead prices reached new highs (**Figures 17 and 18**). Since 1998, both crude oil and natural gas wellhead prices have been rising, for the most part, and natural gas prices have tracked oil prices more closely than in previous years.

Figure 17. Imported Refiner Acquisition Cost of Crude Oil and Natural Gas Wellhead Prices, 1972-2004

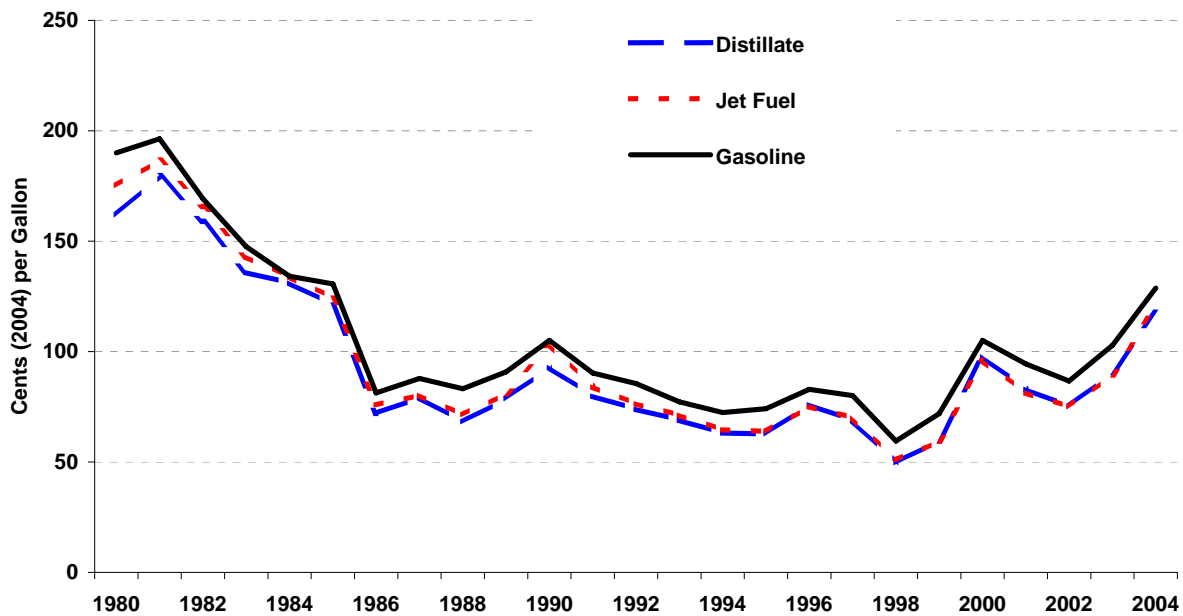


Source: Energy Information Administration.

World crude oil prices (as measured by the U.S. imported refiner acquisition cost) averaged \$35.90 per barrel in 2004, the highest level since 1985 (in constant 2004 dollars). World economic growth was at a 15-year high,³⁹ which led to sharply higher oil demand. Production losses in the U.S. Gulf of Mexico due to the effects of Hurricane Ivan pushed prices up late in the year. Production increased in other countries to meet demand, which reduced world oil spare production capacity and raised the implied global utilization rate to about 99 percent.⁴⁰ Oil inventories remained relatively low in industrial countries, giving further impetus to the rise in oil prices.⁴¹

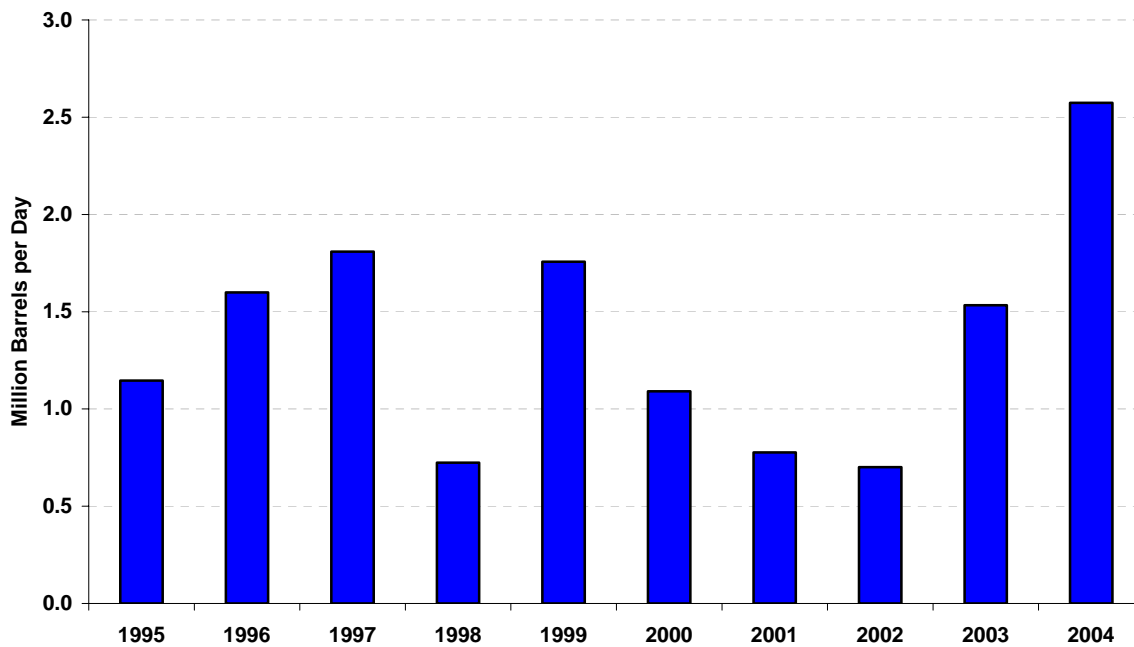
World oil demand jumped 2.6 million barrels per day in 2004 (**Figure 19**), the largest year-to-year increase since 1976 and more than double the average annual increase from 1994 to 2003. China and the United States together accounted for 65 percent of the increase. China's oil consumption rose nearly 1.0 million barrels per day, moving it well past Japan as the second largest oil-consuming country in the

Figure 18. Refiner Prices of Petroleum Products for Resale, 1980-2004



Source: Energy Information Administration.

Figure 19. World Oil Consumption, Change from Previous Year, 1995-2004



Source: Energy Information Administration, *Monthly Energy Review*, DOE-EIA-0034 (2005/10) (Washington, DC, October 2005), Table 11.2.

world. For the 10-year period from 1995 to 2004, China contributed one-quarter of the increase in world oil consumption.⁴²

Despite substantially higher oil demand, world oil supply more than kept pace, rising 3.4 million barrels per day in 2004 (**Table 7**). In an attempt to slow the rapid increase in oil prices, the Organization of the Petroleum Exporting Countries (OPEC) increased production by 2.2 million barrels per day. The countries that comprise the former Soviet Union led the non-OPEC increase, adding 0.9 million barrels per day to the world oil supply.⁴³

Table 7. World Petroleum Balance, 2003–2004
(Million Barrels per Day)

	Quarterly 2004				Annual	
	Q1	Q2	Q3	Q4	2003	2004
Demand	82.6	81.1	81.8	84.4	79.9	82.5
Supply	82.3	82.3	83.5	84.0	79.6	83.1
Supply from Inventories	0.3	-1.2	-1.7	0.4	0.2	-0.6

Note: Supply from Inventories includes statistical discrepancy.

Source: Energy Information Administration, *International Petroleum Monthly* (October 2005), Table 2.1.

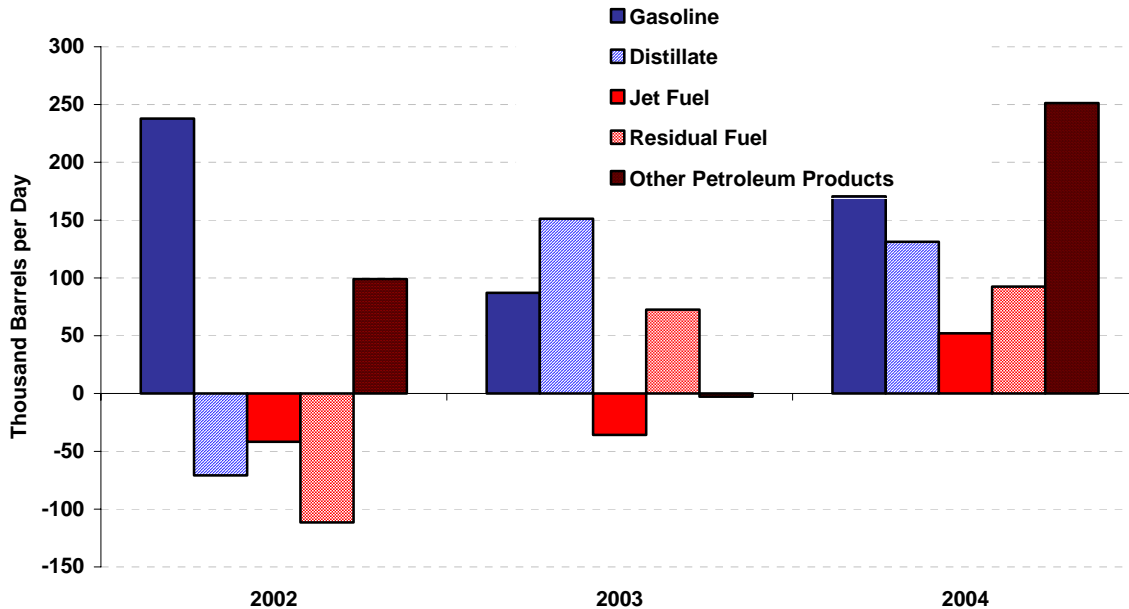
U.S. petroleum demand in 2004 increased by 698 thousand barrels per day, two and one-half times the average annual increase of the previous 10 years. The U.S. economy's 4.2-percent growth, the highest rate of growth since 1999,⁴⁴ contributed to higher demand for petroleum products. Gasoline led the increase, followed by distillate fuel oil (**Figure 20**). Jet fuel demand increased for the first time in 4 years as domestic airline activity recovered.⁴⁵ Increases in demand for petrochemical feedstock, petroleum coke, and liquefied petroleum gases brought about a large rise in the "other petroleum products" category.⁴⁶

Higher demand for petroleum products in the United States and worldwide led to the highest petroleum product prices (in constant 2004 dollars) since 1985. Gasoline prices rose early in the year on strong demand, low inventories, and more stringent specifications⁴⁷ and remained higher than 2003 through the remainder of the year.

On the supply side, U.S. crude oil production fell 262 thousand barrels per day in 2004, more than double the average annual decline of the previous 10-year period. Hurricane Ivan contributed to the sharper decline in crude production. In early October, about 500 thousand barrels per day of crude oil production in the Gulf of Mexico was shut in. The situation improved over the next several weeks but production was still down 200 thousand barrels per day at the end of November.⁴⁸ Total domestic supply in 2004 fell slightly from 2003 as increases in natural gas liquids (NGL) production, ethanol inputs, and refinery processing gain nearly made up for the decline in crude oil production (**Table 8**).⁴⁹ Imports rose sharply to meet the increased demand. Net imports of crude oil surpassed 10 million barrels per day for the first time, and net imports of petroleum products reached the highest level since 1974. Net imports provided 58 percent of petroleum product supplied.⁵⁰

U.S. natural gas wellhead prices averaged \$5.49 per thousand cubic feet in 2004, the highest annual average price on record (in either nominal or constant dollars).⁵¹ Tight supplies kept upward pressure on natural gas prices. U.S. production fell 0.6 percent in 2004,⁵² while Canadian production was flat.⁵³ U.S. natural gas demand in 2004 was essentially flat (**Table 9**), rising just 0.2 percent.⁵⁴ In contrast to 2003, when fuel switching lowered natural gas demand, higher petroleum prices reduced the switching option and put additional upward pressure on natural gas prices.⁵⁵ Later in the year, natural gas prices increased even more in response to production losses resulting from Hurricane Ivan.⁵⁶

Figure 20. U. S. Petroleum Product Consumption, Change from Previous Year, 2002-2004



Sources: 2002-2003: Energy Information Administration, *Annual Energy Review*, DOE/EIA-0384 (2004) (Washington, DC, August 2005), Table 5.11; 2004: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (2004/1) (Washington, DC, June 2005), Table 3.

Table 8. U.S. Petroleum Balance, 2003–2004
(Million Barrels per Day)

	Quarterly 2004				Annual	
	Q1	Q2	Q3	Q4	2003	2004
Demand	20.6	20.5	20.8	21.0	20.0	20.7
Domestic Supply	8.9	9.0	8.7	8.8	8.9	8.8
Net Imports	11.7	12.2	12.3	12.2	11.2	12.1
Supply from Inventories	0.0	-0.7	-0.1	0.0	-0.1	-0.2

Note: Domestic supply includes crude, natural gas liquids (NGL), and other liquids production and refinery processing gain.

Source: Calculated from Energy Information Administration, *Monthly Energy Review* (October 2005), Tables 3.1a and 3.1b.

International natural gas prices also increased significantly in 2004. Prices of natural gas imported into the European Union rose more than 11 percent, and prices of liquefied natural gas imported into Japan increased more than 8 percent.⁵⁷

The FRS Companies' Importance in the U.S. Economy

For the 2004 reporting year, 29 major energy companies reported their financial and operating data to the Energy Information Administration (EIA) FRS on Form EIA-28.⁵⁸ These companies (referred to as the FRS companies in this report) occupy a significant position in the U.S.⁵⁹ economy. In 2004, operating revenues of the FRS companies totaled \$1,128 billion, which is equal to 15 percent of the \$7.4 trillion in revenues of the Fortune 500 corporations.⁶⁰

Table 9. U.S. Natural Gas Balance, 2003–2004
(Trillion Cubic Feet)

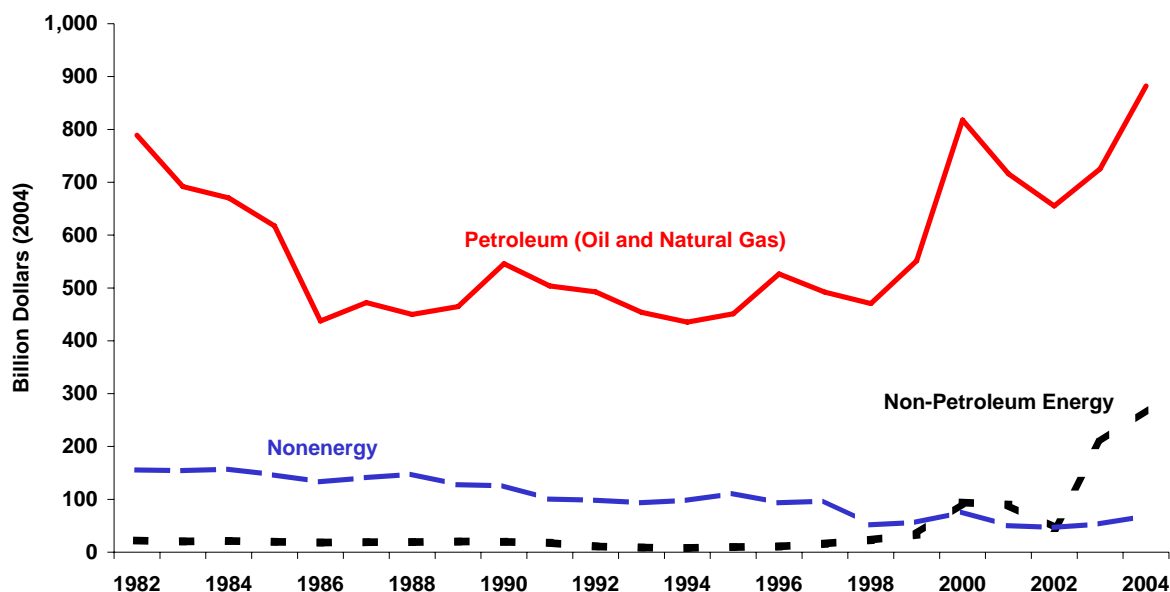
	Quarterly 2004				Annual	
	Q1	Q2	Q3	Q4	2003	2004
Demand	7.3	4.8	4.6	5.7	22.4	22.4
Domestic Supply	4.9	5.0	4.8	4.4	19.3	19.1
Net Imports	0.8	0.8	0.9	0.9	3.3	3.4
Supply from Inventories	1.5	-1.0	-1.0	0.4	-0.2	-0.1

Note: Domestic supply includes dry gas production, supplemental gaseous fuels, and the balancing item.

Source: Energy Information Administration, *Monthly Energy Review* (October 2005), Table 4.1.

The reporting companies engage in a wide range of business activities, but their most important activities are in the energy sector. About 94 percent, or \$1,183 billion, of allocated operating revenues⁶¹ were derived from energy lines of business. Nearly all of these revenues were derived from the companies' core petroleum operations (**Figure 21**). (For the purposes of this report, the petroleum line of business includes natural gas exploration, development, and production, but not downstream natural gas, which became a separate FRS line of business beginning with the 2003 reporting year, as did electric power.⁶²)

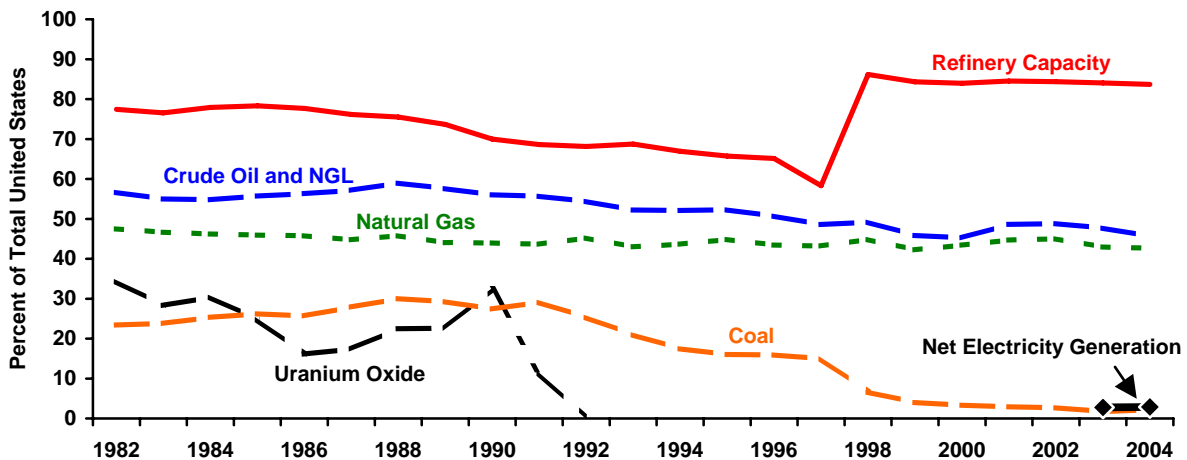
Figure 21. Operating Revenues by Line of Business for FRS Companies, 1982-2004



Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

In 2004, the FRS companies accounted for 46 percent of total U.S. crude oil and NGL production,⁶³ 43 percent of natural gas production, 84 percent of U.S. refining capacity, 3 percent of U.S. electricity net generation, and 2 percent of U.S. coal production (**Figure 22**). About 80 percent of the FRS companies' assets and 90 percent of new investments during 2004 were devoted to sustaining various aspects of petroleum production, processing, transportation, and marketing.

Figure 22. Shares of U.S. Energy Production^a and Refinery Capacity for FRS Companies, 1982-2004



^aOil and gas production for the FRS companies includes only the production that is owned by the FRS companies; it does not include any interests not owned by the FRS companies (e.g., royalty interests owned by others). Total production for the United States includes the interests of all owners.

Note: The FRS companies last produced uranium in 1991.

Sources: Table B1; Total industry uranium oxide production is from Energy Information Administration, *Uranium Industry Annual 1992*, DOE/EIA-0478(92) (Washington, DC, October 1993).

Energy production other than petroleum has been a relatively small, but growing, part of the FRS companies' operations since 1994. During 2004, the combined operating revenues of the downstream natural gas, electricity, and other energy operations⁶⁴ of the FRS companies totaled \$278 billion, or 22 percent of allocated revenues. Increased activity in downstream natural gas and electricity more than offset the continued decline in coal activity by the FRS companies, which began in 1994 and essentially continues to the present.⁶⁵ The growing importance of downstream natural gas and electric power operations to the FRS companies resulted in the addition of each as a separate line of business beginning with the 2003 reporting year.

Nonenergy businesses, mainly chemicals, accounted for 6 percent, or \$71 billion, of the FRS companies' allocated revenues in 2003. During the 1980s, the FRS companies were major producers of domestic uranium. However, no FRS company has produced uranium oxide domestically since 1991.

Endnotes

- ³⁹ BP plc, *BP Statistical Review of World Energy* (June 2005), page 1.
- ⁴⁰ Energy Information Administration, *Short-Term Energy Outlook* (November 2004), page 2.
- ⁴¹ Energy Information Administration, *Short-Term Energy Outlook* (November 2004), page 1.
- ⁴² Energy Information Administration, *Monthly Energy Review* (October 2005), Table 11.2.
- ⁴³ Energy Information Administration, *Monthly Energy Review* (October 2005), Table 11.2.
- ⁴⁴ Energy Information Administration, *Monthly Energy Review* (October 2005), Table 1.8.
- ⁴⁵ Energy Information Administration, *Short-Term Energy Outlook* (July 2004), page 2.
- ⁴⁶ Comparing Energy Information Administration, *Petroleum Supply Annual 2004, Volume 1* (June 2005), Table 3 to Energy Information Administration, *Petroleum Supply Annual 2003, Volume 1* (July 2004), Table 3.
- ⁴⁷ Energy Information Administration, *Short-Term Energy Outlook* (April 2004), page 1.
- ⁴⁸ Energy Information Administration, *Short-Term Energy Outlook* (December 2004), page 1.
- ⁴⁹ Unaccounted for crude oil also increased in 2004.
- ⁵⁰ Energy Information Administration, *Monthly Energy Review* (October 2005), Tables 3.1a and 3.1b.
- ⁵¹ Energy Information Administration, *Annual Energy Review* (August 2005), Table 6.7.
- ⁵² Energy Information Administration, *Monthly Energy Review* (October 2005), Table 4.1.
- ⁵³ BP plc, *BP Statistical Review of World Energy* (June 2005), page 22.
- ⁵⁴ Energy Information Administration, *Monthly Energy Review* (October 2005), Table 4.1.
- ⁵⁵ Energy Information Administration, *Short-Term Energy Outlook* (June 2004), page 3.
- ⁵⁶ Energy Information Administration, *Short-Term Energy Outlook* (November 2004), page 2.
- ⁵⁷ International Energy Agency, Natural Gas Import Costs (database).
- ⁵⁸ Aggregate time series data from Form EIA-28 for 1977 through 2003 and previous editions of this report can be obtained from the EIA (<http://www.eia.doe.gov/emeu/finance/page2.html>).
- ⁵⁹ For the purposes of this report, the term “United States” includes the 50 states, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands.
- ⁶⁰ The Fortune 500 is a list of the 500 largest U.S. corporations, ranked by revenues, published annually by *Fortune* magazine (<http://www.fortune.com/fortune/fortune500>).
- ⁶¹ The sum of allocated operating revenue (\$1,245 billion) exceeds corporate operating revenue (\$1,128 billion) because allocated revenues include revenues from sales within the company and between different lines of business, in addition to the revenue from sales by the company to third parties (i.e., those outside the company). However, revenues from inter-segment sales are eliminated in calculating corporate operating revenue, which only includes sales by the company to third parties.
- ⁶² Generally accepted accounting principles for the United States do not require that energy companies account separately for costs of oil production and natural gas production in company financial records. Various exploration and development costs cannot easily or separately be assigned to either oil production or natural gas production.
- ⁶³ Note that U.S. totals include royalty production, while the FRS companies’ production levels do not. Thus, these calculations understate the FRS companies’ share of crude oil and NGL production and natural gas production.
- ⁶⁴ Beginning with the 2003-reporting year, “other energy” operations include coal operations. Prior to 2003, coal was a separate line of business. Financial information for coal operations has been merged with that of the alternative energy operations, although the operating information related to coal continues to be collected.
- ⁶⁵ In particular, the FRS companies accounted for 29 percent of U.S. coal production in 1991, 15 percent in 1997, 7 percent in 1998, 3 percent in 2001, 1.7 percent in 2003, and 2.2 percent in 2004. These declines were due largely to the lack of profitability attributable to the coal operations of the FRS companies compared to other FRS operations, which averaged a 4 percent annual return over the period 1977–2002. Beginning in 2003, changes in Form EIA-28 prevented calculation of profitability for coal operations alone.

3. Behind the Bottom Line

Oil and Natural Gas Production and Reserve Replacement

Both worldwide oil production and worldwide natural gas production by the Financial Reporting System (FRS) companies declined about 1.3 percent in 2004 (**Table 10**). The only areas that showed increased production were foreign oil and U.S. onshore natural gas. Foreign oil production reversed its decline of 2003 and continued its long-term upward trend (**Figure 23**). While onshore oil production has been steadily declining over the long term, offshore oil production only began declining in 2002. Onshore natural gas production in 2004, similar to foreign oil production, reversed its decline of 2003 and continued its long-term upward trend (**Figure 24**). Foreign natural gas production declined for the first time since 1989, while offshore natural gas production marked its third consecutive yearly decline, after remaining essentially flat for many years.

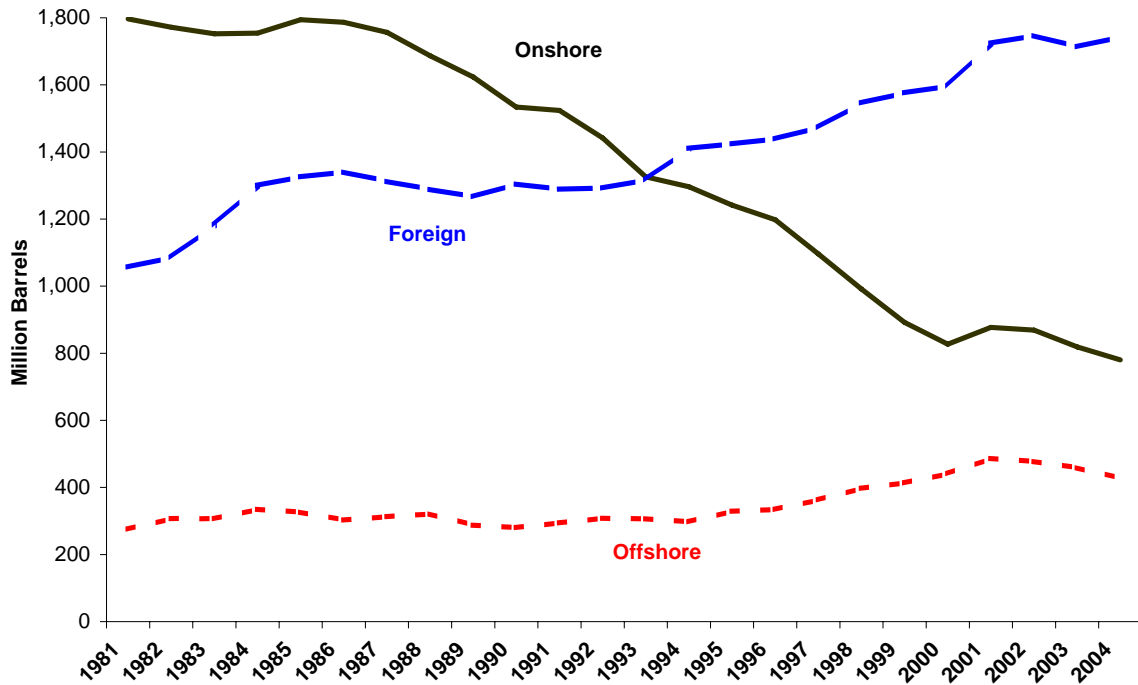
Table 10. Oil and Gas Reserves and Production for FRS Companies, 2003 and 2004

Reserves and Production	U.S. Onshore		U.S. Offshore		Foreign		Worldwide	
	2003	2004	2003	2004	2003	2004	2003	2004
Oil (million barrels)								
Drillbit Additions	600	800	234	(30)	2,266	(416)	3,100	355
Net Purchases	(23)	(67)	18	(28)	87	(77)	82	(172)
Net Reserve Additions	577	733	252	(58)	2,353	(493)	3,181	182
Production	819	780	459	427	1,714	1,743	2,991	2,951
Year-end Oil Reserves	11,089	11,051	4,239	3,792	18,589	16,375	33,916	31,218
Oil Reserve Replacement Rate ^a (percent)	73	103	51	(7)	132	(24)	104	12
Gas (billion cubic feet)								
Drillbit Additions	6,585	9,642	470	619	10,092	8,807	17,147	19,068
Net Purchases	955	2,308	(219)	(489)	(572)	(1,315)	164	503
Net Reserve Additions	7,540	11,951	251	129	9,520	7,491	17,311	19,571
Production	5,872	5,985	2,472	2,189	7,047	7,012	15,391	15,186
Year-end Gas Reserves	70,528	78,183	14,852	13,164	91,544	92,067	176,924	183,414
Gas Reserve Replacement Rate ^a (percent)	112	161	19	28	143	126	111	126

^aExcludes purchases and sales of reserves.
 Note: Sum of components may not equal totals due to independent rounding.
 Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

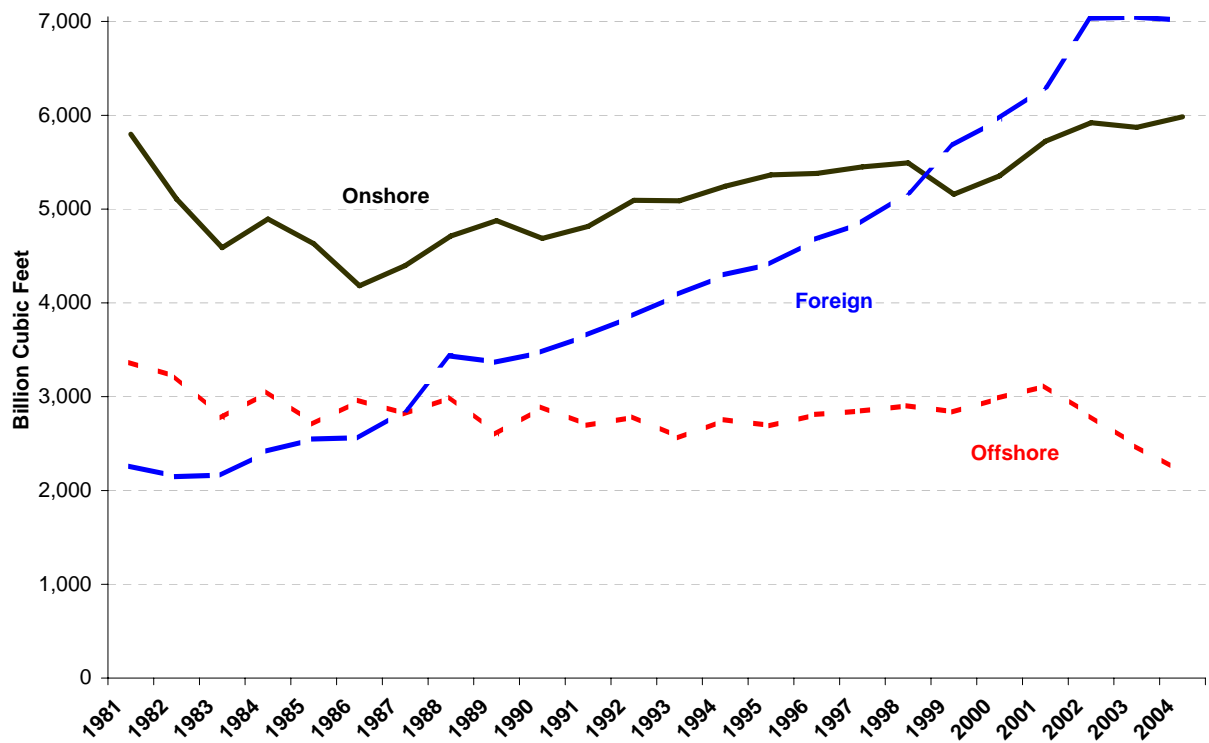
Geographically, reserve replacement (proved reserves found by drilling as a percentage of reserves removed by production) by the FRS companies in 2004 was widely uneven. The U.S. onshore region replaced more than 100 percent of its natural gas production, and, less true to form, more than 100 percent of its oil production (**Table 10**). In both cases, revisions to previous reserve estimates played an important role. For oil, more onshore reserves were added through revisions than through either extensions and discoveries or through the application of improved recovery techniques (the other two categories of reserve additions excluding purchases). For natural gas, while extensions and discoveries, usually the largest category, still added the most reserves, revisions swung from 3 years of negative values to a positive 2.3-trillion-cubic-foot increase. Price increases for both oil and natural gas were one of the major reasons for the substantial upward revisions in domestic reserves. Higher prices allow more resources to be classified as proved reserves because one requirement for proved reserves is that they be economic to produce. Thus resources that are expensive to produce may be uneconomic at lower prices, but economic, and included in proved reserves, with higher prices.

Figure 23. Oil Production for FRS Companies, 1981-2004



Source: Energy Information Administration, Form EIA-28, (Financial Reporting System).

Figure 24. Natural Gas Production for FRS Companies, 1981-2004



Source: Energy Information Administration, Form EIA-28, (Financial Reporting System).

The U.S. offshore region had reserve replacement rates of 28 percent for natural gas and –7 percent for oil in 2004. That is, it replaced only about one quarter of its natural gas production and did not replace any of its oil production (excluding the effect of purchases and sales of reserves). In fact, negative revisions to oil reserves exceeded additions from improved recovery and extensions and discoveries. Both oil and natural gas reserve revisions in the offshore were negative in 2004, although not as negative as in 2003. What led to the large drop for oil was a fall in extensions and discoveries by 70 percent, to their lowest level since 1992. If extensions and discoveries in offshore oil had been the same in 2004 as in 2003, the region would have had a higher replacement rate in 2004 than it did the previous year.

In 2004, foreign reserve replacement was negative for oil but 126 percent for natural gas. Oil reserve revisions were negative for every FRS region except Organization for Economic Cooperation and Development (OECD) Europe (primarily the North Sea), and oil extensions and discoveries declined in every foreign region except Africa and the Other Western Hemisphere (the Western Hemisphere less the United States and Canada). As a result, foreign oil reserve additions excluding purchases and sales of reserves were a negative 416 million barrels. In the rising price climate of 2004, contracts called production-sharing agreements likely contributed to the negative foreign reserve revisions. These are contracts between foreign governments, which own the reserves, and the oil companies that stipulate the oil company's share of the oil and natural gas produced from any particular project that it has undertaken, based on certain conditions. It is common for these contracts to specify that, as oil prices rise, the share of production that the oil company retains (and thus its implied share of the reserves) decreases.

Upstream Income

The financial performance of the oil and natural gas production operations of the FRS companies improved further in 2004, with worldwide net income (excluding unusual items) of \$58 billion on worldwide revenues from oil and natural gas sales of \$173 billion (**Table 11**). While domestic operating expenses decreased slightly from 2003, foreign operating revenues and expenses increased substantially. Operating income and income taxes, both domestic and foreign, also increased. The effective income tax rate, income tax expense as a percent of pretax income, rose about one percentage point for domestic and foreign operations, to 36 and 45 percent, respectively.

Lifting Costs

Lifting costs (also called production costs) are the out-of-pocket costs per barrel of oil and natural gas (measured on a barrel-of-oil equivalent [boe] basis) produced to operate and maintain wells and related equipment and facilities after hydrocarbons have been found, acquired, and developed for production. Total lifting costs are divided into direct lifting costs and production taxes.

Mirroring the results of 2003, total expenses for oil and natural gas production rose in 2004, despite the decline in the volume of worldwide oil and natural gas produced (**Tables 10 and 11**). As a result, total lifting costs increased by 10 percent worldwide (**Table 12**). This increase was more moderate than in 2003, when total lifting costs increased 14 percent. Total lifting costs increased in all FRS regions except Canada. The U.S. offshore region (primarily the Gulf of Mexico) relinquished its position as the region with the lowest total lifting costs after experiencing an increase in cost of 27 percent, probably due to higher direct lifting costs. (FRS data do not separate production taxes from direct lifting costs in the United States).

While production tax increases drove the increase in total lifting costs in 2003, direct lifting cost increases drove the increase in 2004 (**Table 12**). Direct lifting costs increased in every region

Table 11. Income Components and Financial Ratios in Oil and Natural Gas Production for FRS Companies, 2003 and 2004
(Billion Dollars)

Income Components and Financial Ratios	Worldwide		United States		Foreign	
	2003	2004	2003	2004	2003	2004
Oil and Natural Gas Revenues						
Oil	NA	NA	35.0	43.5	NA	NA
Natural Gas	NA	NA	39.4	43.2	NA	NA
Total Revenues	141.9	173.5	74.5	86.7	67.4	86.8
Expenses						
Depreciation, Depletion, and Amortization	29.0	31.1	16.0	16.0	13.0	15.1
Production Costs	27.9	30.5	13.6	14.7	14.4	15.8
Exploration Expenses	5.2	5.1	1.5	4.2	3.7	0.9
General and Administrative Expenses	2.0	3.0	1.2	2.0	0.9	0.9
Other Costs (Revenues) ^a	12.3	13.3	10.7	5.8	1.6	7.5
Total Operating Expenses	76.1	82.4	42.5	42.2	33.6	40.2
Operating Income	65.9	91.1	32.0	44.5	33.9	46.6
Other Income (Expense) ^b	6.5	7.8	2.6	2.8	3.9	5.0
Income Tax Expense	28.4	40.0	12.0	17.0	16.4	23.0
Net Income	44.0	59.0	22.6	30.4	21.3	28.6
Less Unusual Items	(0.7)	0.6	(0.5)	0.1	(0.3)	0.5
Net Income, Excluding Unusual Items	44.7	58.4	23.1	30.3	21.6	28.1
Unit Values (Dollars per BOE of Production)^c						
Direct Lifting Costs (Excluding Taxes)	3.87	4.23	3.77	4.19	3.96	4.25
Production Taxes	1.00	1.16	1.13	1.32	0.88	1.01
Percentages						
Return on Investment ^d	15.28	18.55	16.46	20.17	14.21	17.10
Effective Tax Rate ^e	39.42	40.55	34.69	36.01	43.78	44.72

^aOther Costs (Revenues) include Raw Material Purchases. The Production Segment was prohibited from purchasing natural gas and NGLs for resale to third parties and unconsolidated affiliates beginning in 2003.

^bEarnings of unconsolidated affiliates and gain (loss) on disposition of assets.

^cBOE = Barrels of oil equivalent. Natural gas is converted to equivalent barrels of oil at 0.178 barrels per thousand cubic

^dNet Income divided by net investment in place (Net investment in place = net property, plant, and equipment plus investments and advances to unconsolidated affiliates).

^eIncome tax expense divided by pretax income.

NA = Not available.

Note: Sum of components may not equal total due to independent rounding.

Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

except Canada and the Other Western Hemisphere, the latter of which already had the lowest direct lifting costs of the FRS regions. The former Soviet Union and Eastern Europe became the region with the highest direct lifting costs in 2004, rising from second place in 2003, while the Other Eastern Hemisphere (primarily Asia Pacific, excluding the former Soviet Union) experienced the highest proportional increase in direct lifting costs.

In the longer term, domestic and foreign direct lifting costs have been almost mirror images of each other since 1991 (**Figure 25**). Direct lifting costs began increasing in 1999–2000, after declining during the 1990s, which is not surprising, given the high prices of oil and natural gas in recent years. Producers are willing to spend more to produce oil and natural gas when their prices are higher.

Table 12. Lifting Costs by Region for FRS Companies, 2003 and 2004
(Dollars Per Barrel of Oil Equivalent)

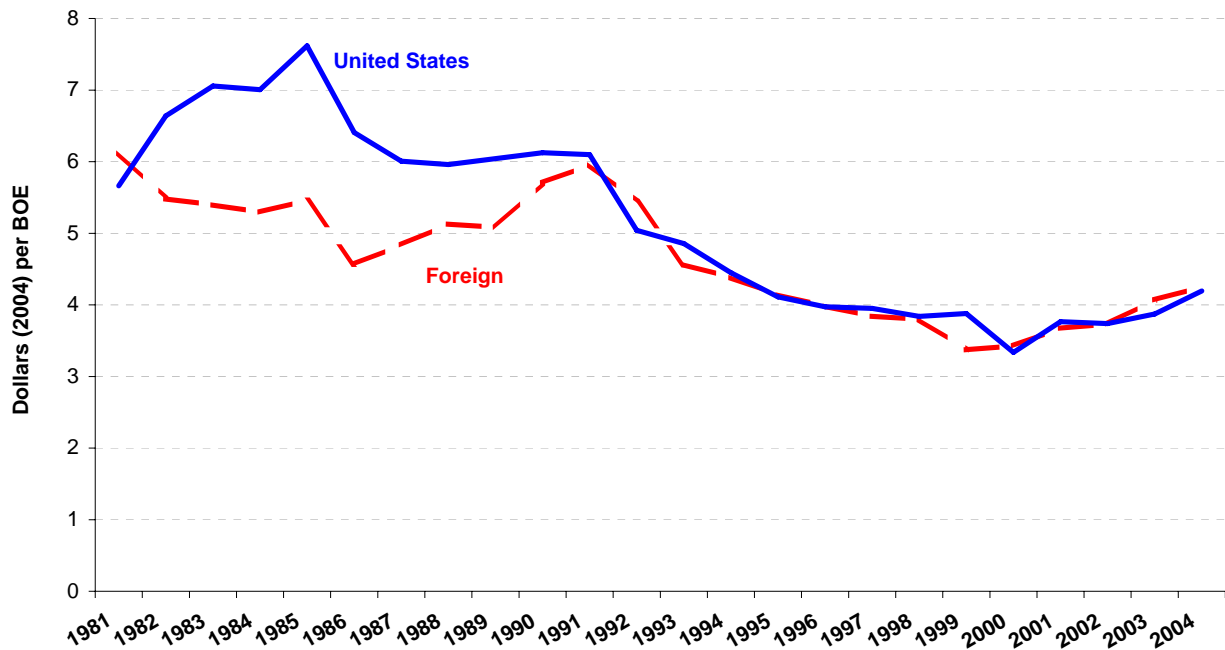
Region	Direct Lifting Costs			Production Taxes			Total		
	2003	2004	Percent Change	2003	2004	Percent Change	2003	2004	Percent Change
United States									
Onshore	--	--	--	--	--	--	5.66	6.08	7.4
Offshore	--	--	--	--	--	--	3.34	4.25	27.3
Total United States	3.77	4.19	11.2	1.13	1.32	17.0	4.90	5.52	12.5
Foreign									
Canada	5.34	5.15	-3.5	0.23	0.23	2.9	5.56	5.38	-3.3
OECD Europe	4.39	4.54	3.4	0.84	0.70	-16.8	5.23	5.24	0.1
Former Soviet Union and Eastern Europe	4.43	5.74	29.6	0.75	1.24	64.8	5.18	6.98	34.7
Africa	3.89	4.06	4.5	1.32	1.51	14.4	5.20	5.57	7.0
Middle East	3.99	4.36	9.4	0.15	0.19	25.7	4.14	4.56	10.0
Other Eastern Hemisphere	2.97	4.26	43.5	1.09	1.53	39.9	4.06	5.79	42.6
Other Western Hemisphere	2.14	1.88	-12.0	1.45	1.72	18.1	3.59	3.60	0.2
Total Foreign	3.96	4.25	7.3	0.88	1.01	15.2	4.84	5.27	8.8
Worldwide Total	3.87	4.23	9.1	1.00	1.16	15.8	4.87	5.39	10.5

-- = Data not available.

Notes: Natural gas is converted to equivalent barrels of oil at 0.178 barrels per thousand cubic feet. Sum of components may not add to total due to independent rounding.

Source: Energy Information Administration, Form EIA-28, (Financial Reporting System).

Figure 25. Direct Oil and Gas Lifting Costs for FRS Companies, 1981-2004



Note: Direct lifting costs are the costs of extracting oil and gas, excluding production taxes.

BOE = Barrels of oil equivalent.

Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

Finding Costs

Finding costs are the costs of adding proven reserves of oil and natural gas through exploration and development activities and the purchase of properties that might contain reserves.⁶⁶ They are measured for oil and natural gas on a combined basis in units of dollars per boe. Ideally, finding costs would include all the costs incurred (no matter when a company incurred these costs or actually recognized them on its books) in finding any particular proven reserves (not including the purchases of already discovered reserves). In practice, finding costs are actually measured as the ratio of exploration and development expenditures (except the expenditures on proved acreage) to proven reserve additions (excluding net purchases of proven reserves) over a specified period of time.⁶⁷ Generally, *Performance Profiles* measures finding costs as a weighted average over a period of 3 years, and, if it presents several years of data, usually reports them in constant dollars (to facilitate comparisons over time).

Average worldwide finding costs for the FRS companies rose \$1.91 per boe for the 2002–2004 period (**Table 13**), easily the largest real dollar increase in the history of the FRS, for which comprehensive finding costs data date back to the 1981–1983 period. This increase was entirely due to smaller additions to reserves by drilling, because spending to find more reserves by drilling decreased slightly. The most important change contributing to the decline in reserves was a decline in oil and natural gas reserve revisions of 2.5 billion boe, which was more than accounted for by a decline in revisions to oil reserves. In fact, revisions to worldwide total reserves and oil reserves were both negative for the 2002–2004 period.

Region	2001-2003	2002-2004	Percent Change
United States			
Onshore	9.16	7.18	-21.6
Offshore	10.24	27.66	170.0
Total United States	9.56	10.33	8.1
Foreign			
Canada	12.26	26.09	112.8
OECD Europe	9.86	12.16	23.3
Former Soviet Union and Eastern Europe	2.63	4.30	63.8
Africa	5.79	7.55	30.4
Middle East	4.05	6.76	67.1
Other Eastern Hemisphere	4.05	6.18	52.5
Other Western Hemisphere	3.98	4.98	25.0
Total Foreign	5.87	8.30	41.3
Worldwide	7.28	9.18	26.2

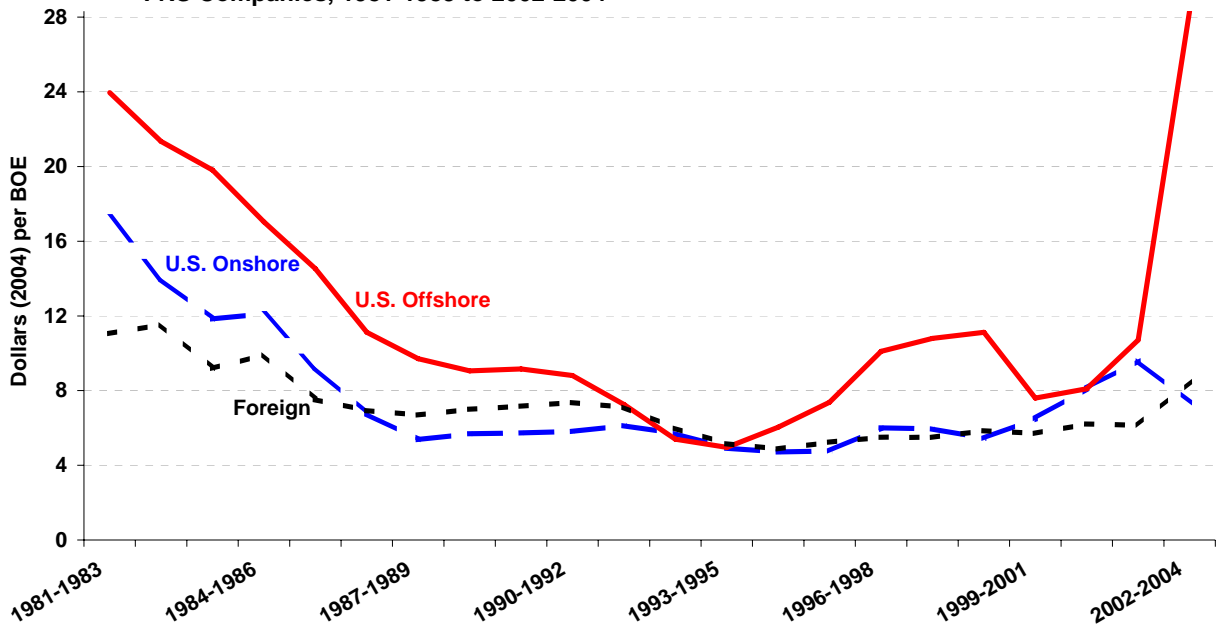
Notes: The above figures are 3-year weighted averages of exploration and development expenditures (current dollars), excluding expenditures for proven acreage, divided by reserve additions, excluding net purchases of reserves. Natural gas is converted to equivalent barrels of oil at 0.178 barrels per thousand cubic feet. Sum of components may not add to total due to independent rounding.

Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

With a substantial 170-percent increase, finding costs in the U.S. offshore region jumped to the highest level among the FRS regions in 2002–2004, with 3-year finding costs of \$27.66 per boe, just edging out the previous leader, Canada, which nonetheless experienced an increase of 113 percent (**Table 13**). For Canada, the major contributor to the rise was a decrease in oil reserve revisions by 777 million barrels, most of which was in 2004. In the U.S. offshore, a billion barrel decline in extensions and discoveries of oil reserves in the 2002–2004 period, to their lowest level since 1992, was the major source of the decline, although oil revisions decreased 331 million barrels. For further discussion of reserve changes, see the section titled “Oil and Natural Gas Production and Reserve Replacement.” Spending to find new reserves was down 9 percent in Canada but increased slightly in the offshore. Finding costs for the U.S. onshore region declined in 2002–2004, in part because expenditures declined 5 percent, but chiefly because revisions to natural gas reserves increased 759 million boe. This limited the increase in total domestic finding costs for the FRS companies to 8.1 percent as U.S. offshore reserve additions were only 15.4 percent of domestic reserve additions for the 2002–2004 period.

In general, finding costs have been rising since the middle of the 1990s and have been more variable for the U.S. offshore region than for the U.S. onshore region or the combined foreign regions (**Figure 26**). The rise in offshore finding costs in the 2002–2004 period is clearly the most spectacular in the history of the FRS. However, offshore finding costs did rise substantially in the 1996–1998 period, only to fall even further in 1999–2001. The 22-percent fall in the U.S. onshore region’s finding costs in 2002–2004 was the largest since 1986–1988, while the 41-percent rise in foreign finding costs was the largest in the history of the FRS.

Figure 26. U.S. Onshore, U.S. Offshore, and Foreign Three-Year Weighted-Average Finding Costs for FRS Companies, 1981-1983 to 2002-2004



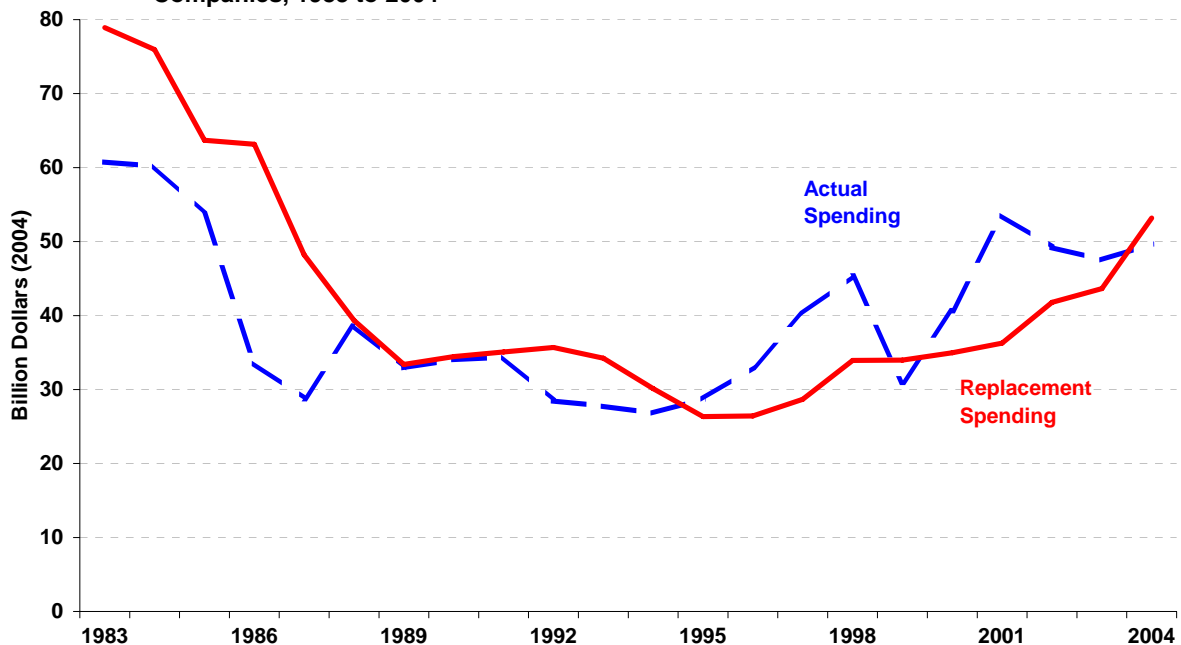
Notes: Three-year finding costs are the quotient of costs and reserve additions for each three-year period. BOE = Barrels of oil equivalent.

Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

Spending to Replace Oil and Gas Production by the FRS Companies

The historical finding costs and production levels of the FRS companies can be used to estimate what it would cost them to find additional reserves (excluding purchases) sufficient to replace their production for any given year.⁶⁸ Actual exploration and development spending for new reserves (excluding purchases) for the FRS companies in 2004, while higher than the previous year, fell below this estimate of the cost to replace their reserves removed through production for the first time since 1999; they also remained below their recent peak in 2001 for the third straight year (**Figure 27**). However, actual spending has exceeded the amount necessary to replace production in eight of the past 10 years, while both have steadily increased since the mid 1990s, when finding costs began rising (**Figure 26**).

Figure 27. Actual Spending to Find Reserves and Spending Needed to Replace Production for FRS Companies, 1983 to 2004

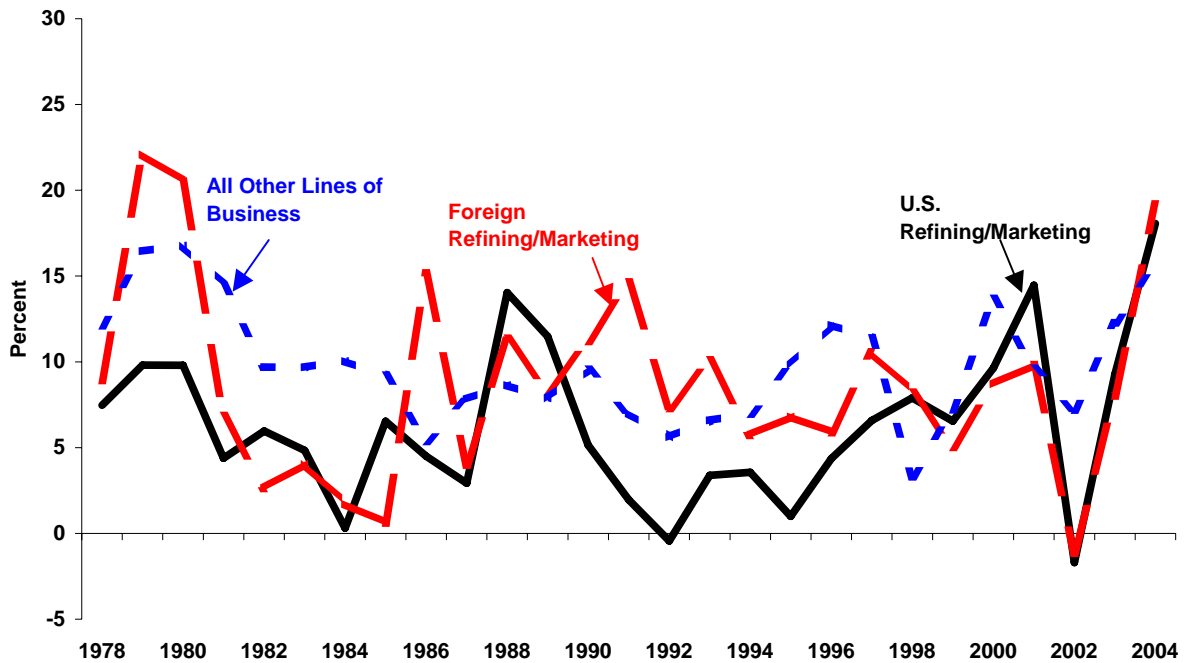


Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

U.S. Refining and Marketing

The profitability of the U.S. refining/marketing operations of the FRS companies reached an FRS all-time high during 2004 (dating back to 1977). The new all-time high of 18-percent return on investment (ROI) exceeded the previous all-time high, registered in 1989, by more than 3 percentage points and essentially doubled the 9-percent ROI of 2003. This result continues the variability in earnings that has affected the FRS companies' U.S. refining/marketing operations over the past 4 years (**Figure 28**). In 2001, U.S. refining/marketing had what was then the second highest year in terms of profitability in the history of the FRS at 14.5 percent. The following year was the worst year in the history of the FRS at -1.7 percent. Subsequently, 2003 was slightly above average at 9.3 percent. Finally, a new all-time high was reached in 2004 at 18.1 percent (with signs that 2005 may be characterized by an even greater level of profitability). The ongoing cost-cutting efforts that have characterized the domestic refining/marketing operations of the FRS

Figure 28. Return on Investment in U.S. and Foreign Refining/Marketing, and All Other Lines of Business for FRS Companies, 1978-2004



Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

companies since the 1990s still appear important in view of the variability of profitability in this business segment.

The change in the profitability of U.S. refining/marketing operations can be explored by examining the net refined product margin (net margin), which is highly correlated with profitability.⁶⁹ The net margin is the gross margin (essentially the difference between petroleum product prices and crude oil costs)⁷⁰ minus out-of-pocket operating costs per barrel of refined product sold. The net margin measures before-tax cash earnings from the production and sale of refined products.⁷¹ The \$2.99-per-barrel net margin of 2004 was the highest (in terms of 2004 dollars) in the 28-year history of the FRS (**Figure 5** (see Chapter 1)).

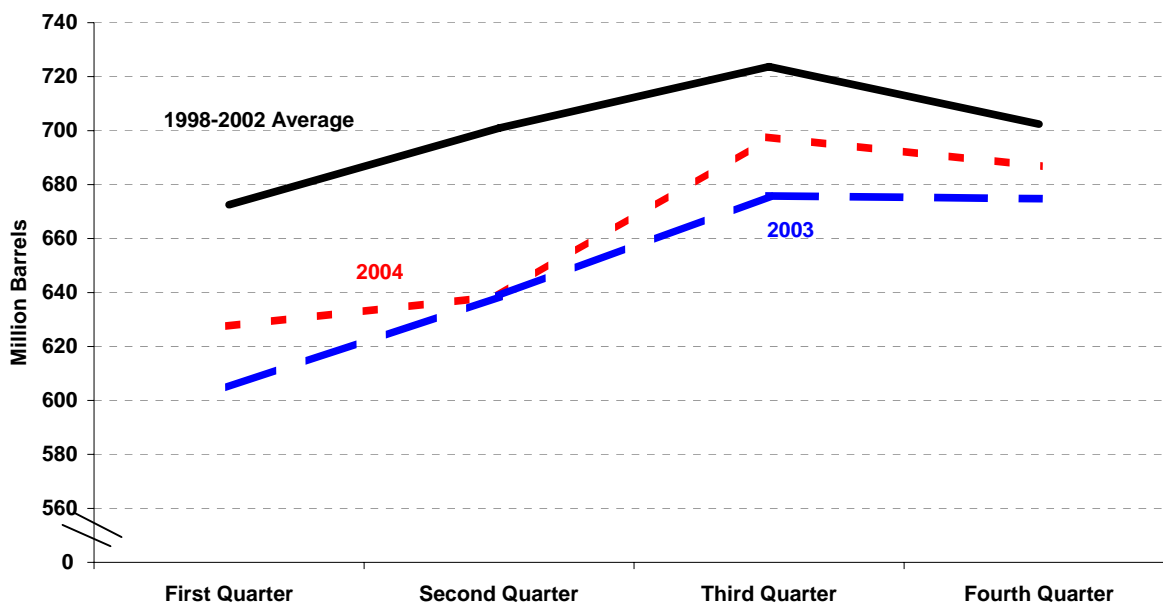
The gross refining margin received by the FRS companies increased 14 percent compared to 2003 (**Table 14**). The average price received for petroleum products increased \$10.69 per barrel, while raw materials and purchased product costs rose \$9.66 per barrel, which resulted in a \$1.04-per-barrel increase in the gross refining margin.

Petroleum product prices were driven higher by increased crude oil costs and tighter product markets, as evidenced by low inventory levels. Although product stock levels were higher in 2004 than in 2003, they were lower than recent historical levels (i.e., the 5-year average over the 1998 through 2002 period), putting upward pressure on product prices (**Figure 29**). Additionally, heating oil stock levels during the fourth quarter of 2004 were 11-percent lower than a year earlier (**Figure 30**). Further, industry-wide stocks of motor gasoline were lower throughout the year relative to both 2003 and the 5-year average over the 1998 through 2002 period (**Figure 31**).⁷² Lower inventory levels and higher crude oil prices put upward pressure on product prices despite somewhat milder weather (4 percent fewer cooling degree days and 4 percent fewer gas-

Table 14. Sales, Prices, Costs, and Margins in U.S. Refining/Marketing for FRS Companies, 2003-2004			
	2003	2004	Percent Change 2003-2004
Refined Product Sales (Million Barrels per Day)	22.1	22.6	2.1
	(Nominal Dollars per Barrel)		
Gasoline Average Price	42.04	54.63	30.0
Distillate Average Price	37.64	49.42	31.3
Other Products Average Price	32.87	36.60	11.4
All Refined Products Average Price	39.17	49.86	27.3
Less: Raw Materials Costs and Product Purchases	31.52	41.39	31.3
Equals: Gross Refining Margin	7.65	8.47	10.7
Less: Direct Operating Costs	5.93	5.68	-4.1
Equals: Net Refining Margin ^a	1.73	2.79	61.6
Reseller/wholesaler spread (dealer price - wholesale price)	5.08	5.08	0.1
Retailer spread (company-operated price - dealer price)	5.77	9.83	70.4

^aSee Appendix B, Table B32, for the components to calculate the refined product margin.
Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

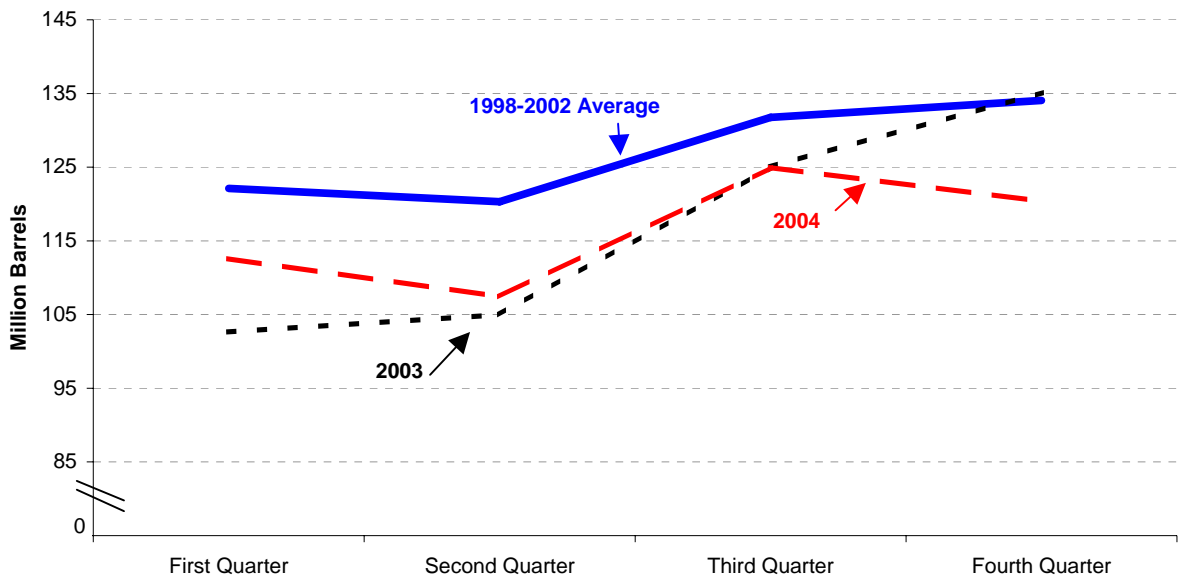
Figure 29. Quarterly Average U.S. Petroleum Product Stocks, 1998-2002 Average, 2003, and 2004



Source: Energy Information Administration, *Petroleum Supply Monthly*, DOE/EIA-0109 (Various issues, Washington, DC), Table 51.

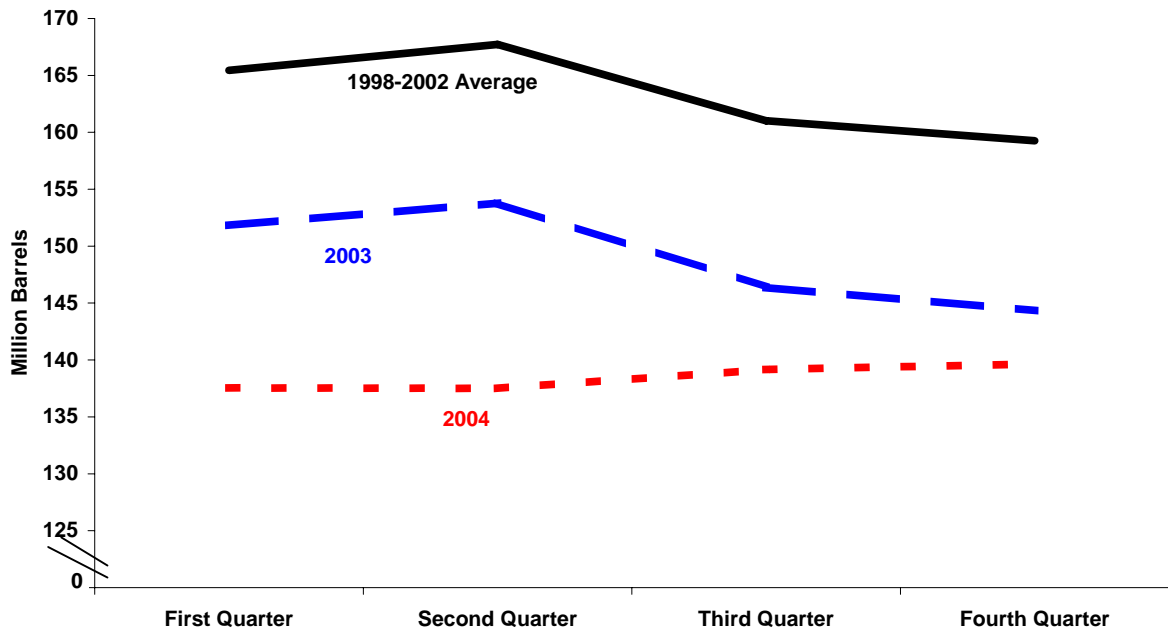
weighted heating degree days) in 2004 compared to 2003.⁷³ Meanwhile, U.S. crude oil stock levels were at historically low levels during all of 2004 relative to the averages for the 1998

Figure 30. Quarterly Average U.S. Distillate Stocks, 1998-2002 Average, 2003, and 2004



Source: Energy Information Administration, *Petroleum Supply Monthly*, DOE/EIA-0109 (Various issues, Washington, DC), Table 51.

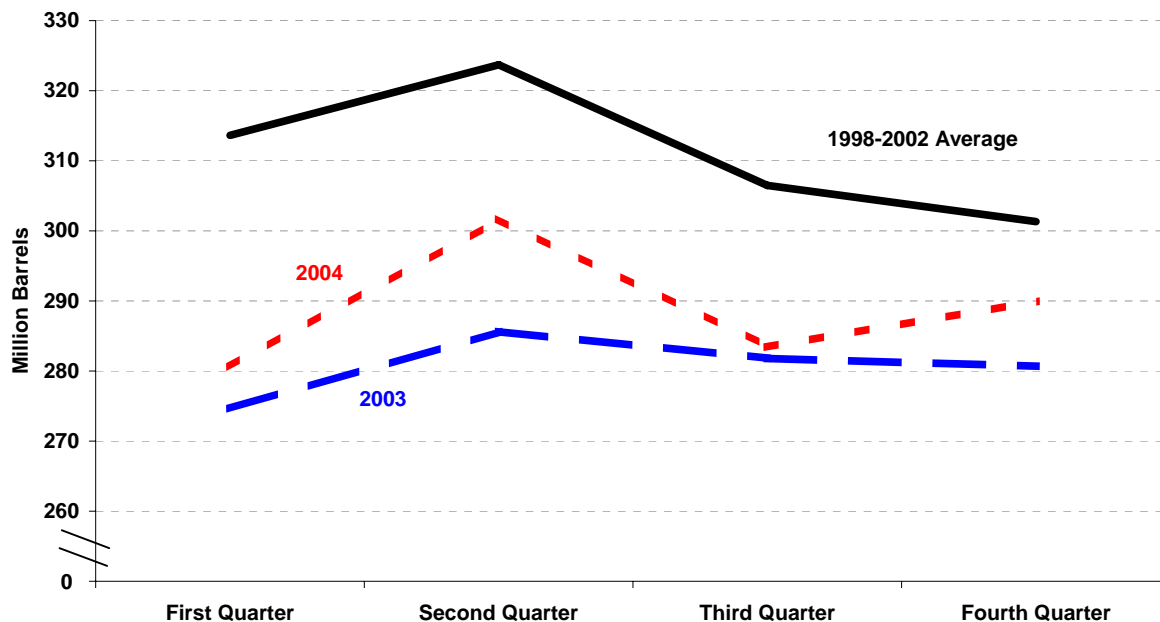
Figure 31. Quarterly Average U.S. Motor Gasoline Stocks, 1998-2002 Average, 2003, and 2004



Source: Energy Information Administration, *Petroleum Supply Monthly*, DOE/EIA-0109 (Various issues, Washington, DC), Table 51.

through 2002 period (**Figure 32**), contributing to the 30-percent increase in the price of crude oil and higher raw material costs for FRS companies.⁷⁴

Figure 32. Quarterly Average U.S. Commercial Crude Oil Stocks, 1998-2002 Average, 2003, and 2004



Source: Energy Information Administration, *Petroleum Supply Monthly*, DOE/EIA-0109 (Various issues, Washington, DC), Table 51.

Petroleum product sales increased a relatively slight 2-percent in 2004 relative to 2003 (**Table 14**). The product sales chiefly comprise motor gasoline and distillate, which increased 1 percent and 2 percent, respectively, while other products increased by 6 percent (**Table 15**). The result of higher sales and higher petroleum product prices was a 30-percent increase in domestic petroleum product sales revenues (**Table 16**). Revenue from other sources also increased substantially, but is too small to have much of an effect on overall profitability. However, operating costs are large and increased by a smaller percentage than did sales revenues (**Table 16**). This combination of increases in revenues and costs resulted in almost twice as much operating income in 2004 than in 2003 (\$20.1 billion and \$10.2 billion, respectively) and almost doubled net income relative to a year ago (\$14.8 billion and \$7.4 billion, respectively).

Overall operating expenses increased 28 percent between 2003 and 2004 (**Table 16**). However, those operating expenses most closely associated with refining and marketing operations on a per barrel basis fell 4 percent between 2003 and 2004 (**Table 14**). In particular, those operating expenses associated with refining (energy costs and other operating costs) fell,⁷⁵ while marketing costs increased slightly (increasing by \$0.10 per barrel) (**Table 15**).

Continued efforts by the FRS companies to reduce their energy costs were less successful in 2004 than in 2003, increasing \$0.21 per barrel. Part of the explanation for higher energy costs is the 10-percent increase in natural gas prices in 2004 relative to 2003.⁷⁶ Additionally, refinery output increased 3 percent, which magnified the effect of higher natural gas prices, further increasing energy costs. FRS companies continue their efforts to contain energy costs through cogeneration

Table 15. U.S. Refined Product Margins and Costs per Barrel Sold and Product Sales Volume for FRS Companies, 2003-2004

	2003	2004	Percent Change 2003 - 2004
	(Dollars per Barrel)		
Gross Margin	7.65	8.47	10.7
- Marketing Costs	1.36	1.35	-0.7
- Energy Costs	1.42	1.74	22.8
- Other Operating Costs	3.15	2.59	-17.7
= Net Margin	1.73	2.79	61.6
	(Million Barrels)		
Product Sales Volume			
Motor Gasoline	11,928	12,063	1.1
Distillate	6,268	6,360	1.5
Other Products	3,897	4,127	5.9
Total	22,092	22,550	2.1

Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

projects, which continue to come online.⁷⁷ Cogeneration projects have been one of the major approaches that these companies have taken to reduce their energy costs during the last few years.⁷⁸

Other operating costs related to refining fell significantly between 2003 and 2004, from \$3.15 per barrel to \$2.60 per barrel. The higher cost structure of the FRS companies that have been

involved in recent mergers may have declined somewhat, possibly because the adjustments of operations and corporate cultures following the many mergers and acquisitions involving FRS companies over the last few years appear to have concluded. Further, environmental spending to comply with the Clean Air Act Amendments of 1990 continues, but at a lower rate as another compliance deadline nears.⁷⁹

Retrenchment of marketing operations continued through both selective investment in outlets in profitable areas and sales of marginal outlets,⁸⁰ but with little apparent effect—marketing costs rose \$0.10 per barrel between 2003 and 2004, a 7-percent increase. Higher costs from extensive rebranding the marketing outlets of several companies apparently more than offset the cost reduction from reduced marketing networks.⁸¹ In particular, branded marketing outlets directly supplied by the FRS companies declined again in 2004 (**Figure 33**), falling 1 percent to 43,598 in 2004 (**Table 17**). Company-operated outlets were reduced negligibly (0.2 percent) in 2004, while dealer outlets were reduced by less than 2 percent. Efforts to eliminate marginal outlets tend to increase average productivity of the remaining outlets, which is measured by average outlet monthly motor gasoline sales volume,⁸² and is evident from the 15-percent increase in the productivity of all directly supplied branded outlets between 2003 and 2004.

Meanwhile, refinery capacity reported by the FRS companies increased negligibly (**Table 18**), as relatively small expansions in the capacity of many refineries offset Williams' sale of its 210,000 barrels-per-day North Pole, Alaska, refinery to Koch Industries.⁸³ Three intra-FRS transactions⁸⁴ shifted assets around as Sunoco purchased El Paso's Eagle Point refinery in Westville, New Jersey, in January;⁸⁵ Valero acquired El Paso's 315,000 barrels per day San Nicholas, Aruba,

Table 16. U.S. and Foreign Refining/Marketing^a Financial Items for FRS Companies, 2003-2004
(Million Dollars)

	2003	2004	Percent Change 2003-2004
Domestic Refining/Marketing Operations			
Refined Product Sales Revenue	315,884	410,408	29.9
Other Revenue ^b	11,975	15,206	27.0
Operating Expense ^{b, c}	317,644	405,565	27.7
Operating Income ^c	10,215	20,049	96.3
Net Income, excluding unusual Items	7,832	15,076	92.5
Unusual Items	-398	-328	--
Net Income	7,434	14,748	98.4
Foreign Refining/Marketing Operations^a			
Refined Product Sales Revenue	174,778	215,135	23.1
Other Revenue ^b	8,902	11,089	24.6
Operating Expense ^{b, c}	179,737	217,513	21.0
Operating Income ^c	3,943	8,711	120.9
Net Income, excluding unusual Items	3,039	7,298	--
Unusual Items	-123	12	--
Net Income	2,916	7,310	150.7

^aIn order to prevent disclosure of company-level data the International Marine business segment has been combined with Foreign Refining/Marketing for this presentation. Relative to Foreign Refining/Marketing, International Marine is about one-tenth the size and has little material effect on the overall results of Foreign Refining/Marketing.

^bRaw materials revenues are netted against total operating expense.

^cExcludes Unusual Items.

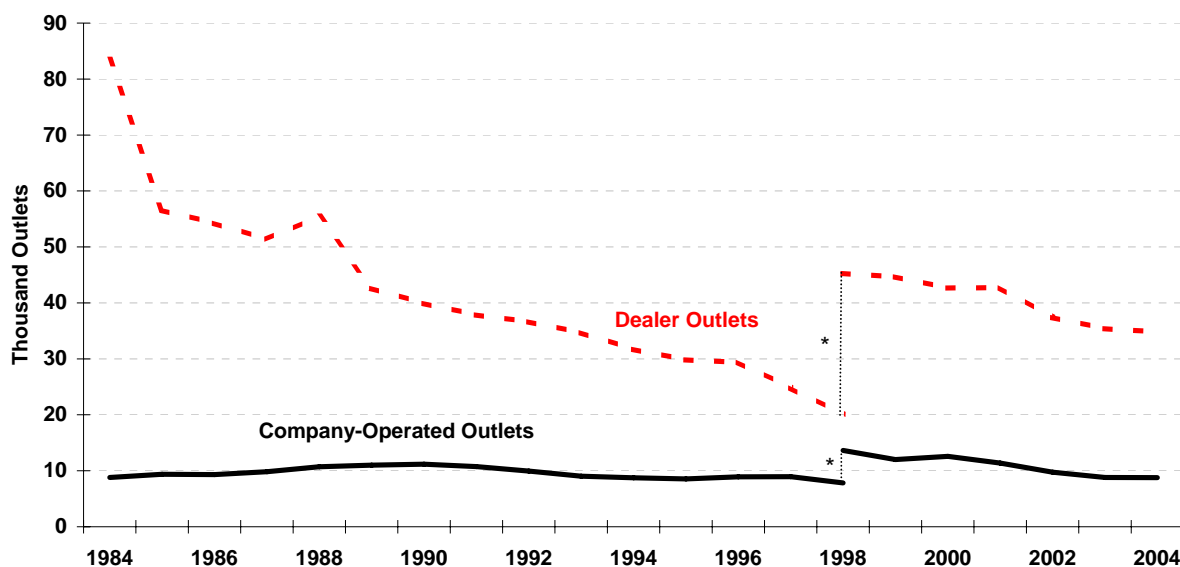
-- = Not meaningful.

Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

refinery in March;⁸⁶ and Premcor acquired Motiva's Delaware City, Delaware, refinery in May.⁸⁷ Refinery upgrades, mainly to meet Phase II-compliant petroleum products or to increase the ability to process heavier and/or higher sulfur crude oil,⁸⁸ increased additions to U.S. refining net investment in place. The combination of transactions, environmental investment, and turnaround spending contributed to an 18-percent increase in U.S. refining additions to net investment in place.⁸⁹

Successful efforts to increase the complexity of the FRS refineries during the last several years (**Table 19**) allow the FRS companies to refine a wide range of crude oils, enabling them to take advantage of price differences between the relatively lower-cost heavy crude oils and the relatively higher-cost light crude oils⁹⁰ and transform them into relatively higher-priced, light products. The price of lighter products (represented by the price of motor gasoline) increased \$10.78 per barrel relative to the price of heavier products (represented by the price of residual fuel oil) (**Figure 34**). Similarly, during 2004 the price of light crude oil relative to heavy crude increased (**Figure 35**), raising the discount paid for heavy crude oil from \$7.11 per barrel in 2003 to \$10.48 per barrel in 2004. These price movements favored companies with complex refineries and provided additional incentives for companies to expand their capability to process heavy crude oil.

Figure 33. Company-Operated and Dealer Outlets for FRS Companies, 1984-2004



*The addition of 11 companies to the group of U.S. majors in 1998, the largest single-year change in the history of the Financial Reporting System, resulted in the vertical displacement of the series in 1998.

Note: Only outlets directly supplied by the FRS companies are included here.

Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

The year 2004 was the most profitable in the 28-year history of the FRS and followed a recent series of unusually profitable years, which were broken in 2002 by the most unprofitable year in the history of the FRS. The primary reason for the increased profitability of the FRS U.S. refining/marketing operations in 2004 relative to 2003 was twofold. First, the gross refining margin increased by \$1.04 per barrel, which was mainly due to product prices increasing faster than raw materials prices. TPD⁹¹ DPT Second, operating costs declined \$0.23 per barrel between 2003 and 2004. Declines in other refining costs outweighed higher energy and marketing costs. The combination of these two factors increased the net refining margin by more than \$1 per barrel, which was a 73-percent increase. It appears that FRS cost-cutting efforts over the last several years have enabled the FRS operations to better withstand the vicissitudes of their industry, particularly variable energy costs. Continued efforts to eliminate marginal outlets among of the FRS companies' motor gasoline retailing operations (and the resulting decline in marketing costs) suggests that FRS companies' continue to attempt to place a floor beneath their profitability.

Foreign Refining and Marketing⁹²

Two years after recording the all-time low in profitability in the 28-year history of the FRS, FRS companies achieved a near all-time high for return on net investment in place of foreign refining/marketing operations. The profit rate of 19 percent was 11 percentage points higher than that of 2003 but still somewhat lower than the highs of 1979 and 1980 (22 and 21 percent, respectively) (Figure 28). An increase in refined product and other revenue relative to 2003, partially offset by an increase in operating expense, resulted in more than a doubling of operating income and a \$4.4-billion increase in net income (Table 16).

Table 17. Motor Gasoline Distribution and Number of Direct-Supplied Branded Outlets for FRS Companies, 2003-2004

	2003	2004	Percent Change 2003-2004
Third-Party Volume	(Million Barrels)		
Wholesale	2,507.7	2,308.2	-8.0
Retail			
Dealer	797.1	881.0	10.5
Company-Operated	556.2	508.3	-8.6
Total Retail	1,353.3	1,389.4	2.7
Direct	572.2	610.4	6.7
Total Third-Party Volume	4,433.2	4,308.0	-2.8
Intersegment Volume	44.9	78.5	74.7
	(Number of Direct-Supplied Branded Outlets)		
Dealer Outlets	35,403	34,816	-1.7
Company-Operated Outlets	8,804	8,782	-0.2
Total Retail Outlets	44,207	43,598	-1.4
Average Monthly Outlet Volume	(Thousand Gallons per Month)		
Dealers	78.8	88.6	12.4
Company-Operated	171.6	202.5	18.0
All Direct-Supplied Outlets	97.3	111.5	14.6

Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

Table 18. U.S. and Foreign Refining/Marketing Investment and Refining Operating Items for FRS Companies, 2003-2004

	2003	2004	Percent Change 2003-2004
	(Billion Dollars)		
U.S. Refining Additions to Investment in Place	6.8	8.1	18.4
U.S. Marketing Additions to Investment in Place	3.1	2.8	-10.1
Foreign Refining/Marketing Additions to Investment in Place	2.7	2.9	7.8
	(Thousand Barrels per Day)		
U.S. Refining Capacity	14,709	14,839	0.9
U.S. Refinery Output	14,587	15,082	3.4
Foreign Refining Capacity	5,374	5,698	6.0
Foreign Refinery Output	4,622	4,905	6.1
	(Percent)		
U.S. Refinery Utilization Rate ¹	91.5	92.6	(2)
Foreign Refinery Utilization Rate ¹	84.8	88.3	(2)

¹Refinery utilization rate is calculated by dividing runs to stills at own refineries by the average of the year beginning and year ending crude oil distillation capacity.

²Not meaningful.

Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

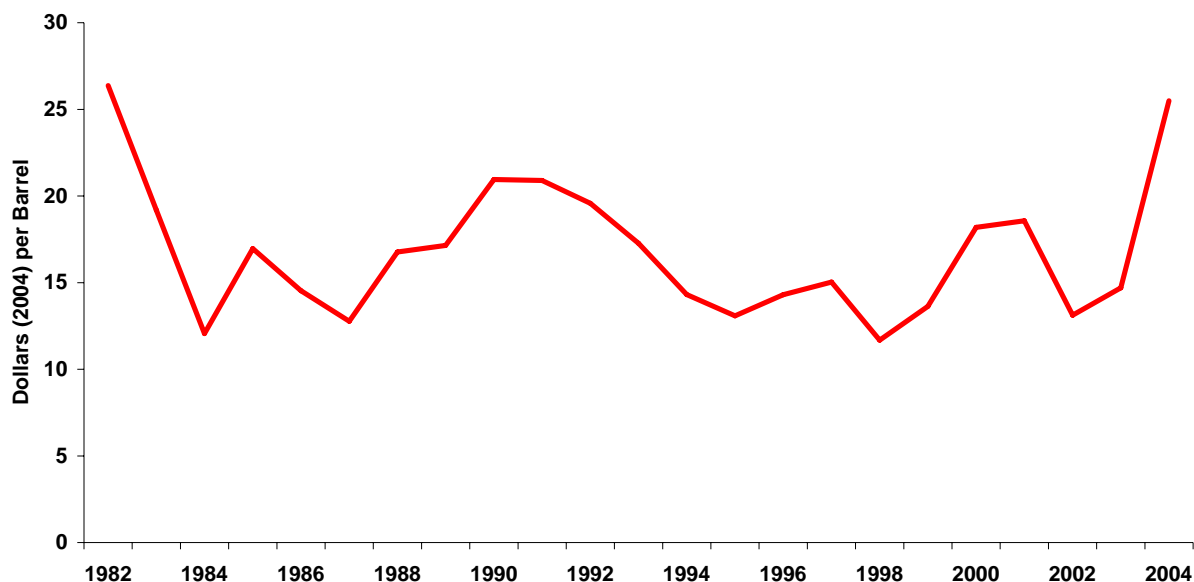
Table 19. U.S. Refinery Configurations of FRS Companies, Selected Years, 1974-2004
(Percent)

	1974	1981	1993	1996	1997	1999	2000	2001	2002	2003	2004
Integrated Refiners (includes joint ventures)	Downstream capacity as a percent of crude distillation capacity										
Coking	n.c.	n.c.	n.c.	13.0	12.6	12.9	13.9	15.1	15.2	15.4	15.7
Catalytic cracking	27.7	30.4	36.5	33.8	35.9	35.8	35.6	35.5	34.0	33.4	33.7
Catalytic reforming	17.6	22.4	25.8	24.9	23.4	22.3	22.4	22.0	22.3	21.8	21.8
Hydro cracking	5.6	5.7	9.6	9.6	9.6	10.9	11.0	11.6	11.6	10.4	10.7
Catalytic hydrotreating	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.	79.5
Alkylation	4.8	5.3	7.7	6.8	7.5	7.4	7.4	7.2	7.1	7.2	7.3
Non-integrated refiners (includes CITGO and Motiva)											
Coking	n.c.	n.c.	n.c.	11.0	12.7	12.0	12.1	12.4	12.0	13.5	14.7
Catalytic cracking	n.c.	n.c.	n.c.	29.8	34.1	34.0	35.5	35.5	36.3	36.7	38.4
Catalytic reforming	n.c.	n.c.	n.c.	18.9	21.5	22.5	21.9	21.7	21.4	21.1	21.8
Hydro cracking	n.c.	n.c.	n.c.	6.3	7.8	8.6	8.6	8.4	7.8	8.5	8.7
Catalytic hydrotreating	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.	71.4
Alkylation	n.c.	n.c.	n.c.	6.0	6.8	6.0	6.3	6.3	6.4	6.4	6.9

n.c.: Information not collected.

Sources: *Oil and Gas Journal*, "Worldwide Refinery Report," 1974, 1981, 1993, 1996, 1997, 1999, 2000, 2001, 2002, 2003, and 2004.

Figure 34. Resale Price Difference Between Motor Gasoline and Residual Fuel Oil, 1982-2004

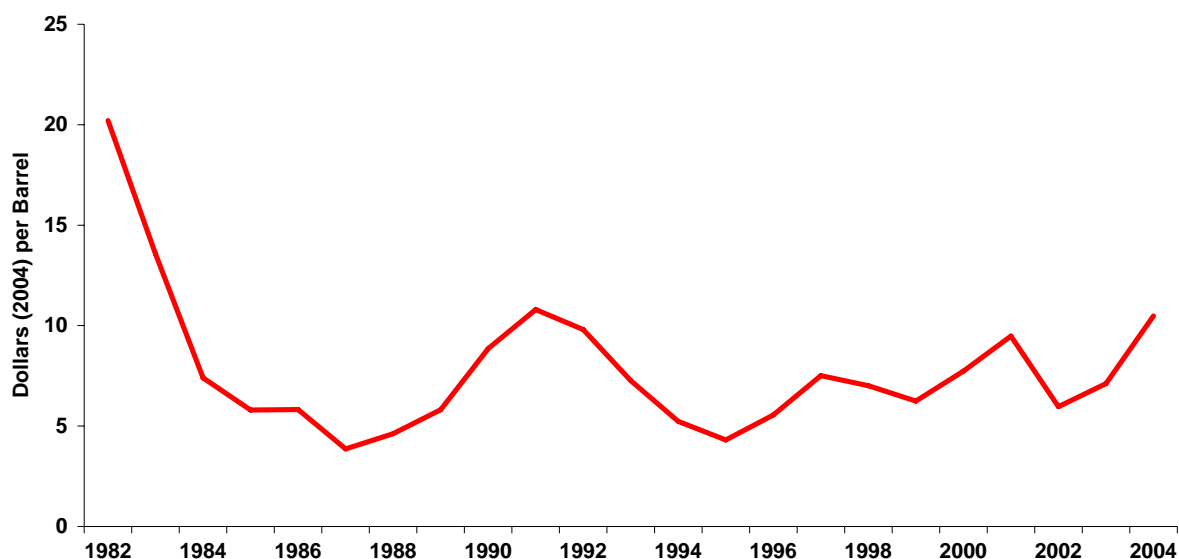


Note: Motor gasoline tends to sell for a higher price per barrel than does residual fuel oil. Thus, the vertical distance of the line in the figure from the horizontal axis indicates the premium paid for motor gasoline relative to residual fuel oil.

Source: Energy Information Administration, *Petroleum Marketing Monthly*, DOE/EIA-0380, Table 4.

The FRS companies derive their foreign refining/marketing earnings from two sources: unconsolidated affiliates and consolidated operations. In general, the corporate parent of an

Figure 35. Price Difference Between Light Crude Oil and Heavy Crude Oil, 1982-2004



Note: Light crude oil tends to sell for a higher price per barrel than does heavy crude oil. Thus, the vertical distance of the line in the figure from the horizontal axis indicates the premium paid for light crude oil relative to heavy crude oil. The more expensive light crude oil is defined here as having an API gravity of 40.1 or greater and heavy crude oil is defined as having an API gravity of 20 or less.

Source: Energy Information Administration, *Petroleum Marketing Monthly*, DOE/EIA-0380, Tables 27 and 28.

unconsolidated affiliate owns 50 percent, or less, of the affiliate, and does not directly control the affiliate (a joint venture, for example, is usually an unconsolidated affiliate from the perspective of at least one of the partners⁹³). Essentially, the unconsolidated affiliate is more of a property or holding of the parent corporation than a company that the parent corporation operates. The effect on financial operations of an unconsolidated affiliate can be seen only on the parent corporation's income statement, where the parent company's proportional share of the affiliate's net income is reported. Conversely, the parent corporation directly controls a fully consolidated affiliate (although it could be owned by several companies, with the parent corporation owning more than 50 percent). In addition, the parent corporation reports all operating and financial information about a fully consolidated affiliate (such as revenues) in its public financial disclosures, not just its proportional share.

Historically, the operations of the FRS companies' unconsolidated foreign refining/marketing affiliates have been mainly in Asia Pacific. Chevron owns much of the FRS Asia Pacific refinery capacity, most of which is unconsolidated. In fact, 69 percent of FRS unconsolidated foreign refinery capacity was in Asia Pacific in 2004 (**Table 20**). Almost half of FRS consolidated foreign refinery capacity is located in Europe, 48 percent in 2004, with much of the remaining consolidated refinery capacity in Asia Pacific.

The increase between 2003 and 2004 in FRS foreign refining/marketing operations was due to large increases in both consolidated and unconsolidated operations (**Figure 36**). The companies cited a variety of reasons for the increased profitability of FRS foreign refining/marketing operations (both consolidated and unconsolidated) in public statements, including increased

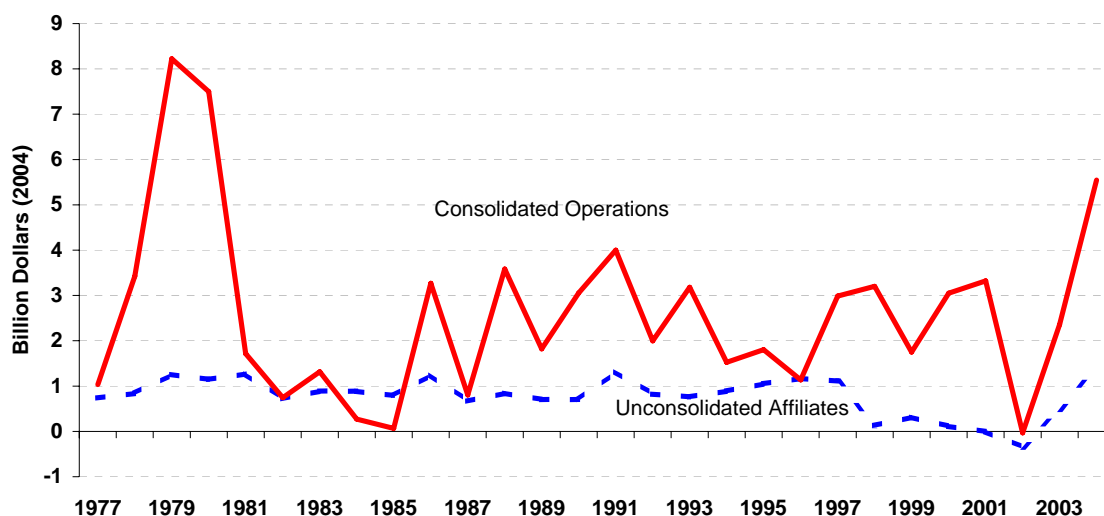
Table 20. Regional Distribution of Foreign Refinery Capacity for FRS Companies, 2003-2004
(Percent)

	Consolidated Operations		Unconsolidated Affiliates	
	2003	2004	2003	2004
Europe	48.1	48.0	17.5	17.0
Asia	26.1	26.5	68.2	69.1
Latin America	9.1	9.1	0.7	0.6
Canada	14.1	13.9	0.0	0.0
Other	2.6	2.5	13.6	13.2
Grand Total	100.0	100.0	100.0	100.0

Note: The region denoted as "Other" includes Africa and the Middle East.

Sources: Company Annual Reports and filings of U.S. Securities and Exchange Commission Form 10-K.

Figure 36. Foreign Refining/Marketing Net Income^a from Consolidated Operations and Unconsolidated Affiliates of FRS Companies, 1977-2004



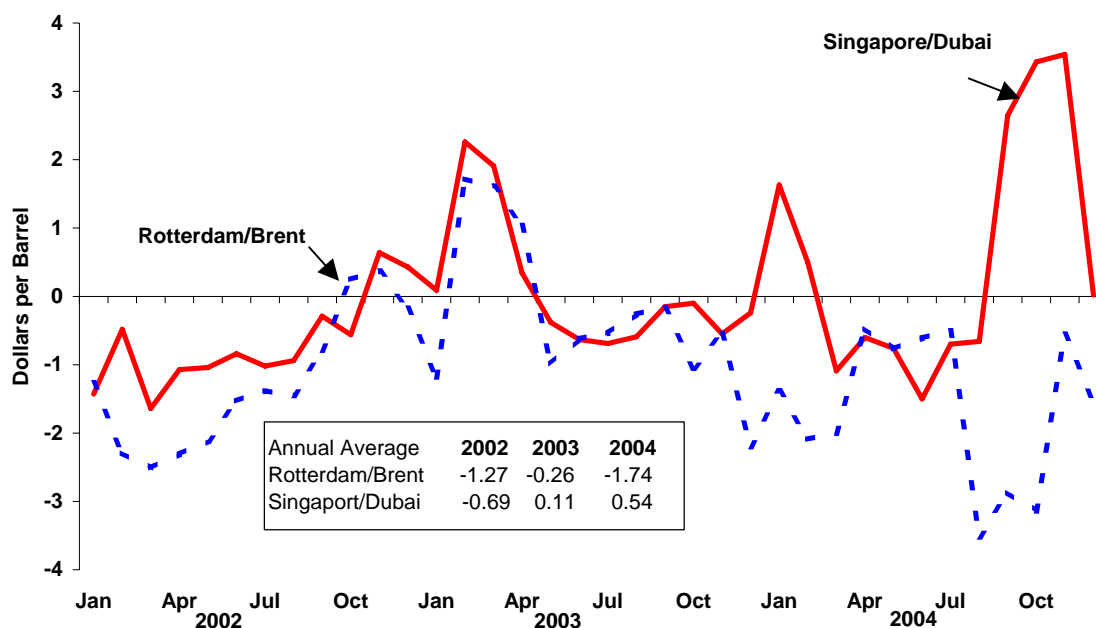
^aThe International Marine business segment has been combined with Foreign Refining/Marketing for this presentation in order to prevent disclosure of company-level data. Relative to Foreign Refining/Marketing, International Marine is about one-tenth the size and has little material effect on the overall results of Foreign Refining/Marketing.

Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

worldwide demand and product sales, TPD⁹⁴ DPT improved refinery output slate, TPD⁹⁵ DPT greater price differential between heavy/sour crude oil and light/sweet crude oil,⁹⁶ reduced energy⁹⁷ and other operating costs,⁹⁸ and higher utilization rates.⁹⁹

During 2004, the FRS companies' unconsolidated affiliates¹⁰⁰ generated \$1,414 million of net income, which almost trebled the level of 2003 and was the highest level in the 28-year history of the FRS (in 2004 dollars). For the industry, Asia Pacific refining margins of 2004 were higher than those of 2003, mostly from September onward (**Figure 37**). The late surge was sufficient that the annual gross refining margin in Asia Pacific (represented by the Singapore/Dubai gross refining margin) in 2004 averaged \$0.43 per barrel more than in 2003.

Figure 37. Foreign Gross Refining Margins, 2002-2004



Sources: Energy Intelligence Group, *Oil Market Intelligence* **2002**: January 2003 and July 2002, p. 12; **2003**: January 2004 and July 2003, p. 12; and **2004**: January 2005 and July 2004, p. 12.

Consumption of petroleum products in Asia Pacific (combining Asian Developing Countries with Australia, Japan, and New Zealand) increased between 2003 and 2004 (**Figure 38**), increasing by 5 percent entirely because of an 8-percent increase in petroleum consumption by the Asian Developing Countries. Increased consumption fueled higher returns from the FRS unconsolidated foreign refining/marketing operations. Company public disclosures noted several reasons for the higher earnings generated by the Asia Pacific operations of the FRS companies, including increased refinery runs¹⁰¹ in response to market conditions,¹⁰² and increased light product demand in Asia Pacific, particularly in China.¹⁰³

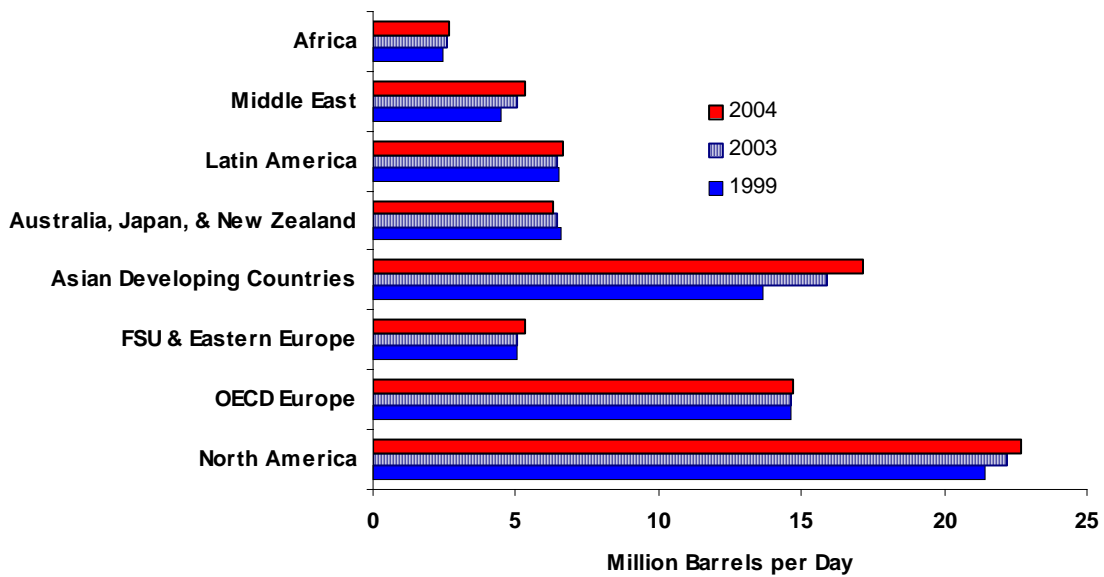
Net income of the FRS companies' consolidated operations increased between 2003 and 2004 (**Figure 36**), providing \$5,545 million of net income, which was 141 percent higher than net income in 2003. Higher earnings were negligibly aided by an almost imperceptible increase in Europe's consumption of petroleum products (**Figure 38**), which increased 0.4 percent between 2003 and 2004.

European refining margins (represented by the Rotterdam/Brent gross refining margin) were consistently lower during 2004 than in 2003 (**Figure 37**), with a few exceptions (June, July, and December). The ultimate result was that the average margin for 2004 was \$1.56 per barrel lower than the average margin for 2003.

Thus, FRS companies' consolidated earnings increased substantially despite essentially unchanged petroleum product consumption and an appreciable decrease in the refining margin. Public disclosures of the FRS companies with European operations cited many factors, including increased refinery runs,¹⁰⁴ reorganized and upgraded refineries,¹⁰⁵ utilization of low-cost refinery

inputs,¹⁰⁶ additional refinery capacity,¹⁰⁷ and expansion of retail sales and selective marketing growth.¹⁰⁸ Some FRS European refineries are particularly well placed to export petroleum products to the United States, but they did not directly tie that ability to the increased net income of 2004 relative to 2003¹⁰⁹

Figure 38. Petroleum Consumption by Region, 1999, 2003, and 2004



Source: BP plc, *BP Statistical Review of World Energy* (June 2005), p. 9.

Endnotes

⁶⁶ Alternatively, finding costs are the exploration, development, and property acquisition costs of replacing reserves removed through production.

⁶⁷ One inherent limitation of measuring finding costs this way is that the expenditures and the reserve additions recognized in a particular interval do not usually correspond exactly with each other. Expenditures are usually recognized in the period that the payment actually occurred. Proven reserves are usually recognized when there is reasonable certainty that they can be produced economically. There is no reason that these must occur in the same time period (oil and gas wells often are operated over a long time period), so that some expenditures may not be recognized in the same time period that their corresponding reserves are recognized. One way to moderate this limitation is to increase the length of the time period over which finding costs are measured, allowing reserve additions and exploration and development expenditures to match up more closely. However, the longer the time period over which finding costs are measured, the more out of date they become, because they include older and older expenditures and reserves, and costs and technology are constantly changing. The only way to solve the correspondence problem would be to calculate an average finding cost for all of the oil and gas produced by a well after it is permanently shut in. But then many costs included would be considerably out of date.

⁶⁸ That is, finding costs times production equals the estimated expenditures necessary to replace production. For the calculation presented here, we used real finding costs for the period covering the year of production and the previous 2 years.

⁶⁹ As has been mentioned numerous times over the last few years, the net margin is highly correlated with return on investment. The correlation was re-estimated for a discussion of the relationship between refining margins and profitability and the correlation coefficient was found to be 0.93. See “Refining Margins as Predictors of Profitability” in Chapter 4 of last year’s publication.

⁷⁰ More precisely, gross margins are calculated, on a per-barrel basis, by taking refined product revenues minus purchases of raw materials input to refining and refined product purchases.

⁷¹ The net margin excludes peripheral activities such as non-petroleum product sales at convenience stores.

⁷² The stock levels of 2004 varied between 12 percent and 18 percent lower relative to the average for the period 1998 through 2002.

⁷³ Energy Information Administration, *Short-Term Energy Outlook* (Washington, D.C., November 8, 2005), Table A1. This publication is available on the Internet at <http://www.eia.doe.gov/pub/forecasting/steo/oldsteos/nov05.pdf> (as of December 2, 2005).

⁷⁴ Energy Information Administration, *Annual Energy Review 2004*, DOE/EIA-0384 (2004) (Washington, D.C., September 13, 2005), Table 5.21 (Composite Refiner Acquisition Cost). This table is available on the Internet at <http://www.eia.doe.gov/emeu/aer/petro.html> (as of December 2, 2005).

⁷⁵ Refining energy costs rose, but other refining costs fell, with the net effect that overall refining costs fell 4 percent between 2003 and 2004.

⁷⁶ Energy Information Administration, *Annual Energy Review 2004*, DOE/EIA-0384 (2004) (Washington, D.C., September 13, 2004), Table 6.7 (Nominal Wellhead Price). This table is available on the Internet at <http://www.eia.doe.gov/emeu/aer/natgas.html> (as of December 2, 2005).

⁷⁷ During 2004, Exxon Mobil started up cogeneration facilities at its Baytown, Texas, and Beaumont, Texas, refineries (Exxon Mobil Corporation, *2004 Financial and Operating Review*, p. 68).

⁷⁸ See for example, Energy Information Administration, *Performance Profiles of Major Energy Producers 2001*, DOE/EIA-0206 (2001) (Washington, D.C., January 2003), p.43 (This publication is available on the Internet from a link at <http://www.eia.doe.gov/emeu/finance/histlib.html> [as of December 2, 2005].)

⁷⁹ Although we have no estimate of the significance of the environmental spending in 2004’s “other operating costs,” some companies (e.g., ConocoPhillips Company, *2004 Annual Report*, p. 49) mentioned environmental expenses of more than \$600 million during 2004. Additionally, a recent study that examined these is available on EIA’s Web site at http://www.eia.doe.gov/emeu/perfpro/ref_pi2/index.html.

⁸⁰ Amerada Hess acquired 50 retail outlets during 2004 (Amerada Hess Corporation, 2004 U. Securities and Exchange Commission Form 10-K filing, p. 6). ChevronTexaco continued to market and sell retail outlets, a strategy they initially implemented in early 2003, and had disposed about 1,600 outlets by the end of 2004 (ChevronTexaco Corporation, *2004 Annual Report*, p. 30). ConocoPhillips continues to renovate its Phillips 66, Conoco, and 76 branded outlets to give a consistent appearance to the outlets and reduce

operating costs. ConocoPhillips also sold its Mobil-branded East Coast marketing assets in two transactions during the spring of 2004, which included a total of 450 company-operated and dealer outlets (ConocoPhillips Company, *2004 Annual Report*, pp. 16 and 75). Exxon Mobil added 300 On the Run convenience stores during 2004 (Exxon Mobil Corporation, *2004 Financial and Operating Review*, p. 71). Marathon sold an unspecified number of Speedway SuperAmerica outlets to Sunoco during 2004 (Marathon Oil Corporation, 2004 U.S. Securities and Exchange Commission Form 10-K, p. 39). More than 4,600 Texaco-branded retail outlets were converted between 2002 and the end of 2004 to the Shell brand (Shell Oil Company, Press Release [August 10, 2004]). In April, Sunoco acquired 340 Mobil-branded retail outlets from ConocoPhillips and began rebranding the outlets to Sunoco, many of which will have an Aplus convenience store (Sunoco, Inc., 2004 U.S. Securities and Exchange Commission Form 10-K, p. 8).

⁸¹ ConocoPhillips continues to renovate its Phillips 66, Conoco, and 76 branded outlets to give a consistent appearance to the outlets and maintain low-cost operations (ConocoPhillips Company, *2004 Annual Report*, p. 16). More than 4,600 Texaco-branded retail outlets were converted between 2002 and the end of 2004 to the Shell brand (Shell Oil Company, Press Release [August 10, 2004]). In April, Sunoco acquired 340 Mobil-branded retail outlets from ConocoPhillips and began rebranding the outlets to Sunoco, many of which will have an Aplus convenience store (Sunoco, Inc., 2004 U.S. Securities and Exchange Commission Form 10-K, p. 8).

⁸² However, some FRS companies have noted in the past that these efforts can be frustrated if productive dealers elect to change brands.

⁸³ Energy Information Administration, *Petroleum Supply Annual 2004*, Volume 1, DOE/EIA-0340(04)/1 (June 2005, Washington, DC), Table 49. Available on the Internet at http://www.eia.doe.gov/oil_gas/petroleum/data_publications/petroleum_supply_annual/psa_volume1/psa_volume1.html (as of December 4, 2005).

⁸⁴ These four transactions also reduced the number of FRS companies with refining assets by two, because both El Paso and Williams no longer own any refinery capacity.

⁸⁵ Sunoco Inc., “Sunoco Closes Eagle Point Refinery Acquisition; Provides Fourth Quarter Earnings Guidance” (January 13, 2004). Available on the Internet at <http://www.sunoco.com/aboutsunoco/newsandspeeches/3992f.htm> (as of December 4, 2005).

⁸⁶ Valero Energy Corporation, “Valero Energy Corporation Completes Aruba Acquisition” (March 5, 2004). Available on the Internet at http://www.valero.com/NewsRoom/News+Releases/NR_2004-03-05.htm (as of December 4, 2005).

⁸⁷ Premcor Inc., “Premcor Completes Purchase of Motiva Enterprises’ Delaware City Refining Complex” (May 3, 2004). Available on the Internet at http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=PCO&script=417&layout=-6&item_id=521987 (as of December 4, 2005).

⁸⁸ Several FRS companies mentioned upgrading projects in their public financial disclosures, whether to comply with Tier II requirements or to process lower grades of crude oil. These included CITGO (CITGO Petroleum Corporation, 2004 U.S. Securities and Exchange Commission Form 10-K filing, p. 15), ConocoPhillips (ConocoPhillips Petroleum Company, *2004 Annual Report*, pp. 15, 47, and 48), Exxon Mobil (Exxon Mobil Corporation, 2004 U.S. Securities and Exchange Commission Form 10-K filing, p. 39; and *2004 Financial and Operating Review*, p. 65), Marathon (Marathon Oil Corporation, *2004 Annual Report*, pp. 5 and 14; and 2004 U.S. Securities and Exchange Commission Form 10-K Filing, pp. 13 and 19), Premcor (Premcor Inc., 2004 U.S. Securities and Exchange Commission Form 10-K Filing, pp. 20 and 52), Sunoco (Sunoco Inc., 2004 U.S. Securities and Exchange Commission Form 10-K filing, p. 6; and *2004 Annual Report*, p. 30), Tesoro (Tesoro Corporation, 2004 U.S. Securities and Exchange Commission Form 10-K Filing, pp. 36 and 40), and Valero (Valero Energy Corporation, 2004 U.S. Securities and Exchange Commission Form 10-K Filing, pp. 16 and 42).

⁸⁹ Some of the companies mentioned that capital spending increased, but gave no reasons for the change; for example, Amerada Hess (Amerada Hess Corporation, 2004 U.S. Securities and Exchange Commission Form 10-K filing, p. 45).

⁹⁰ The efforts continue. For example, ConocoPhillips (ConocoPhillips Company, *2004 Annual Report*, p. 48), Premcor (Premcor Inc., 2004 U.S. Securities and Exchange Commission Form 10-K filing, p. 4), and Valero (Valero Energy Corporation, 2004 U.S. Securities and Exchange Commission Form 10-K filing, p. 27) all made investments or acquisitions during 2004 that increased the company’s ability to process heavier, lower cost crude oil.

⁹¹ Actually, raw material prices and the prices paid for petroleum product purchases.

⁹² The International Marine business segment has been combined with Foreign Refining/Marketing for this presentation to prevent disclosure of company-level data. Relative to Foreign Refining/Marketing, International Marine is about one-tenth the size and has little material effect on the overall results of Foreign Refining/Marketing.

⁹³ The Caltex joint venture was an unconsolidated affiliate for both of its parents, Chevron and Texaco.

⁹⁴ ChevronTexaco Corporation, *2004 Annual Report*, p. 30, and *2004 Supplement to the Annual Report*, p. 42.

⁹⁵ Exxon Mobil Corporation, *2004 Financial and Operating Review*, p. 69.

⁹⁶ Chevron Texaco Corporation, *2004 Supplement to the Annual Report*, p. 42.

⁹⁷ Exxon Mobil Corporation, *2004 Financial and Operating Review*, p. 69.

⁹⁸ Exxon Mobil, 2004 U.S. Securities and Exchange Commission Form 10-K filing, p. 33.

⁹⁹ Exxon Mobil, 2004 U.S. Securities and Exchange Commission Form 10-K filing, p. 33.

¹⁰⁰ The parent company owns less than 50 percent of an affiliate. Only the parent company's proportional share of the affiliate's net income is reported.

¹⁰¹ Exxon Mobil Corporation, *2004 Financial and Operating Review*, p. 76, and ChevronTexaco Corporation, *2004 Supplement to the Annual Report*, p. 50.

¹⁰² ChevronTexaco Corporation, *2004 Supplement to the Annual Report*, p. 42.

¹⁰³ ChevronTexaco Corporation, *2004 Supplement to the Annual Report*, p. 42.

¹⁰⁴ ChevronTexaco Corporation, *2004 Supplement to the Annual Report*, p. 43.

¹⁰⁵ ConocoPhillips Company, *2004 Annual Report*, p. 15.

¹⁰⁶ ChevronTexaco Corporation, *2004 Supplement to the Annual Report*, p. 44, and Exxon Mobil Corporation, *2004 Financial and Operating Review*, p. 69.

¹⁰⁷ ConocoPhillips Company, *2004 Annual Report*, p. 15.

¹⁰⁸ ConocoPhillips Company, *2004 Annual Report*, pp. 16 and 48.

¹⁰⁹ In particular, ChevronTexaco indicated that its United Kingdom refinery had this capability as did ConocoPhillips, regarding its Ireland and United Kingdom refineries.

Brief Description of Financial Terms

For additional information, see the Glossary on page 39 of the Form EIA-28 instructions, available at http://www.eia.doe.gov/emeu/perfpro/form/eia28_instructions_2004.pdf.

Capital Expenditure: Funds (including cash) used by a company to acquire or upgrade physical assets such as property, industrial buildings, or equipment.

Cash Flow From Operations: The amount of cash a company generates from operations, defined as net income after taxes plus depreciation and other noncash expenses.

Development Expenditures: Costs of developmental wells, facilities and support equipment used to access and prepare oil and gas deposits for production.

Exploration Expenditures: Costs of locating oil and gas deposits, including the costs of retaining and carrying undeveloped property, geological and geophysical costs, and the costs of drilling and equipping exploratory wells.

Finding Costs: The per-barrel costs of adding oil or gas proved reserves.

Gross Refining Margin: The difference between the revenue from the sale of petroleum products (e.g., motor gasoline) and the cost of the raw materials (e.g., crude oil) used to produce the products.

Lifting (Production) Costs: See Production Costs.

Net Income: A company's total earnings, or profit. Net income is calculated by taking revenues less the cost of doing business, depreciation, interest, taxes and other expenses. This number is an important measure of how profitable the company is over a period of time.¹¹⁰

Net Investment In Place: The sum of long-term assets of the company after adjusting for the age of the assets.

Net Refining Margin: The difference between the gross refining margin and the costs of producing and selling the petroleum products (e.g., refining energy costs and selling costs).

Production (Lifting) Costs: The per-barrel costs associated with the extraction of a mineral reserve from a producing property.

Production Expenditures: The costs of extracting oil and gas from oil and gas deposits.

Profitability: Both of these measures are used to get a balanced look at how a company or an industry is performing in terms of earnings relative to investments. They are also usually compared to other companies within the same industry, or when measuring an industry, to other similar industries. Two of the major measures of profitability are:

- **Return on Equity (ROE):** Net income divided by shareholders' equity. ROE measures performance (i.e., net income) relative to the value of stockholders' equity (retained earnings plus other equity) in the company.
- **Return on Investment (ROI):** Net income divided by net investment in place. ROI measures performance relative to the value of investments **by** the company in property, plant and equipment (PP&E) (long-term capital assets) that are used to engage in its revenue producing operations. ROI can be used to measure the performance of an individual project or business segment within a company.

Reserve Additions: The amount of oil and gas reserves added in a year.

Reserve Replacement Ratio: The amount of oil and gas reserves added in a year divided by the amount of oil and gas produced during that same year.

Reserves-to-Production Ratio: The number of years that oil and gas reserves would last at the current production rate.

Endnote

¹¹⁰ See the dictionary on Investopedia.com for additional information. Investopedia.com can be found at <http://www.investopedia.com> (as of December 16, 2005).

Appendix A

The Financial Reporting System (FRS)

The legislation establishing the Financial Reporting System (FRS) requires the reporting of individual company financial and operating data to be on a "uniform and standardized basis" so that the data can be aggregated and comparisons can be made across companies and groups of companies.

The legislation also required the Energy Information Administration (EIA) to consult with the U.S. Securities and Exchange Commission in an effort to be consistent with other Federal financial accounting practices.

Accordingly, the FRS reporting form (Form EIA-28) necessarily incorporates a number of specific energy financial accounting principles and conventions. Details on these financial accounting concepts and principles can be found on the EIA Worldwide Web site at <http://www.eia.doe.gov/emeu/perfpro/appenda.html>. In particular, the interested reader is referenced to the following subheadings:

- *Survey Format* (see <http://www.eia.doe.gov/emeu/perfpro/appenda.html#rptfmt>),
- *Petroleum Segment Overview* (see <http://www.eia.doe.gov/emeu/perfpro/appenda.html#petovw>),
- *Selection of Reporting Companies* (see <http://www.eia.doe.gov/emeu/perfpro/appenda.html#criteria>),
- *Financial Analysis Guide* (see <http://www.eia.doe.gov/emeu/perfpro/appenda.html#faguide>),
- *Accounting Practices* (see <http://www.eia.doe.gov/emeu/perfpro/appenda.html#acctpr>).

Appendix B

Table B1. Selected U.S. Operating Statistics for FRS Companies and U.S. Industry, 1998-2004

Operating Statistics	1998	1999	2000	2001	2002	2003	2004
Petroleum and Natural Gas							
Net Production							
Crude Oil and Natural Gas Liquids (million barrels)							
FRS Companies	1,388.8	1,305.7	1,267.9	1,363.2	1,346.4	1,277.8	1,207.8
U.S. Industry ¹	2,824.0	2,848.0	2,801.0	2,805.0	2,759.0	2,679.0	2,646.0
FRS as a Percent of U.S. Industry	49.2	45.8	45.3	48.6	48.8	47.7	45.6
Natural Gas (billion cubic feet)							
FRS Companies	8,395.9	7,994.1	8,340.1	8,838.0	8,712.5	8,343.6	8,174.0
U.S. Industry ¹	18,720.0	18,928.0	19,219.0	19,779.0	19,353.0	19,425.0	19,168.0
FRS as a Percent of U.S. Industry	44.8	42.2	43.4	44.7	45.0	43.0	42.6
Net Imports							
Crude Oil and Natural Gas Liquids (million barrels)							
FRS Companies	634.7	474.9	324.1	716.1	630.5	737.8	918.4
U.S. Industry ¹	3,358.5	3,366.4	3,527.0	3,620.1	3,523.2	3,539.0	3,909.7
FRS as a Percent of U.S. Industry	18.9	14.1	9.2	19.8	17.9	20.8	23.5
Refinery Capacity (thousand barrels per day)							
FRS Companies	14,277.0	14,158.0	14,424.0	14,682.0	14,630.0	14,709.0	14,839.0
U.S. Industry ¹	16,567.0	16,787.0	17,177.4	17,367.4	17,338.9	17,500.0	17,729.0
FRS as a Percent of U.S. Industry	86.2	84.3	84.0	84.5	84.4	84.1	83.7
Refinery Output ² (thousand barrels per day)							
FRS Companies	14,929.0	14,639.0	14,499.0	15,022.0	14,761.0	14,683.0	15,176.0
U.S. Industry ¹	17,499.6	17,493.1	17,763.2	17,688.9	17,654.5	17,969.5	18,584.0
FRS as a Percent of U.S. Industry	85.3	83.7	81.6	84.9	83.6	81.7	81.7
Electric Power							
Net Summer Capacity (million kilowatts)							
FRS Companies	-	-	-	-	-	28.9	33.7
U.S. Industry	775.9	785.9	811.7	848.3	905.3	948.4	962.9
FRS as a Percent of U.S. Industry	-	-	-	-	-	3.0	3.5
Net Generation (billion kilowatthours)							
FRS Companies	-	-	-	-	-	107.5	115.4
U.S. Industry	3,620.3	3,694.8	3,802.1	3,736.6	3,858.5	3,883.2	3,970.6
FRS as a Percent of U.S. Industry	-	-	-	-	-	2.8	2.9
Coal Production (million tons)							
FRS Companies	73.9	44.0	35.5	33.0	29.3	18.3	24.4
U.S. Industry ¹	1,117.5	1,100.4	1,073.6	1,127.7	1,093.3	1,071.8	1,111.1
FRS as a Percent of U.S. Industry	6.6	4.0	3.3	2.9	2.7	1.7	2.2

¹ U.S. area is defined to include the 50 States, District of Columbia, U.S. Virgin Islands, and Puerto Rico.

² For FRS companies, includes refinery output at own refineries for own account and at others' refineries for own account.

- = Not available.

Note: The data for total U.S. production of crude oil and natural gas liquids and natural gas (dry) utilized in this report are taken from Energy Information Administration, Form EIA-23 (Annual Survey of Domestic Oil and Gas Reserves); see U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves 2004 Annual Report November 2005). This source is utilized in order to preserve consistency between production reported in the context of oil and gas reserves and reserve additions and production reported elsewhere in this report. However, the official Energy Information Administration U.S. totals for crude oil and natural gas plant production are 2,800 million barrels in 2004 and 2,855 million barrels in 2003. (See Energy Information Administration, Petroleum Supply Annual 2004, Volume I (June 2005), p. 2.) For dry natural gas production, the official Energy Information Administration U.S. totals are 18,666 billion cubic feet in 2004 and 19,036 billion cubic feet in 2003. (See Energy Information Administration, Natural Gas Monthly, December 2005, Table 1.)

Sources: Industry data - Petroleum net production: Energy Information Administration (EIA), Form EIA-23; see *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, 2004 Annual Report* (November 2005). Net imports: data compiled for the International Energy Agency by the Petroleum Supply Division, Office of Oil and Gas, EIA. Refinery capacity and refinery output: EIA, Forms EIA-820 (Annual Refinery Report) and EIA-810 (Monthly Refinery Report); see *Petroleum Supply Annual, 2003 and 2004*. Electric capacity and electric generation: EIA, Form EIA-860, *Annual Electric Generator Reports*; Form EIA-867, *Annual Nonutility Power Producer Report*; Form EIA-860A, *Annual Electric Generator Report—Utility*; Form EIA-860B, *Annual Electric Generator Report—Nonutility*; Form EIA-906 and Form EIA-759, *Power Plant Reports*.

FRS companies' data - Energy Information Administration, Form EIA-28 (Financial Reporting System).

Table B2. Selected Financial Items for the FRS Companies and the S&P Industrials, 2003-2004
(Billion Dollars)

Selected Financial Items	FRS Companies		S&P Industrials	
	2003	2004	2003	2004
Income Statement				
Operating Revenues	881.2	1,127.7	5,109.7	5,728.9
Operating Expenses	-799.7	-1,005.3	-4,552.6	-5,059.2
Operating Income	81.6	122.4	557.1	669.7
Interest Expense	-8.8	-10.9	-101.7	-99.7
Other Income ¹	16.9	17.9	-18.2	-36.3
Income Taxes	-32.3	-48.4	-144.2	-177.9
Net Income	57.4	81.1	293.1	355.8
Cash Flows from Operations²				
Net Income	57.4	81.1	293.1	355.8
Other Items, Net ³	47.7	54.8	356.1	358.1
Net Cash Flow from Operations	105.1	135.8	649.2	713.9
Cash Flows from Investing Activities²				
Additions to Property, Plant & Equipment	-76.4	-79.9	-275.0	-298.8
Other Investment Activities, Net ⁴	17.1	17.9	-43.9	-101.9
Net Cash Flow from Investing Activities	-59.3	-62.0	-318.9	-400.7
Cash Flows from Financing Activities²				
Proceeds from Long-Term Debt	26.4	18.5	419.2	355.8
Proceeds from Equity Security Offerings	8.4	8.1	39.7	69.2
Dividends to Shareholders	-42.8	-36.5	-104.1	-115.3
Reductions in Long-Term Debt	-26.2	-18.4	-407.1	-386.2
Stock Repurchases	-6.1	-14.0	-112.4	-174.6
Other Financing Activities, Net	2.5	-11.2	-70.2	10.5
Net Cash Flow from Financing Activities	-37.8	-53.5	-235.0	-240.6
Effect of Exchange Rate Changes on Cash				
	0.8	0.9	9.4	12.8
Increase (Decrease) in Cash and Cash Equivalents				
	8.8	21.2	104.8	85.4

¹ "Other Income" includes other revenue and expense (excluding interest expense), discontinued operations, extraordinary items, and accounting changes.

² Items that add to cash are positive, and items that use cash are shown as negative values.

³ "Other Items, Net" includes: Depreciation, Depletion & Amortization, deferred taxes, dry hole expense, minority interest, recognized undistributed earnings/(losses) of unconsolidated affiliates, (gain)/loss on disposition of Property, Plant & Equipment, changes in operating assets and liabilities, and other noncash items, excluding net change in short-term debt; other cash items, net.

⁴ "Other Investment Activities, Net" includes additions to investments and advances and proceeds from disposals of PP&E.

Sources: Standard & Poor's (S&P) Industrials data are extracted from the S&P 500 Index, excluding the Financial, Utilities, and Transportation, sectors - Compustat PC Plus, a service of Standard & Poor's. FRS companies' data - Energy Information Administration, Form EIA-28 (Financial Reporting System).

Table B3. Balance Sheet Items and Financial Ratios for FRS Companies and S&P Industrials, 2003-2004

	FRS Companies		S&P Industrials	
	2003	2004	2003	2004
Balance Sheet	(billion dollars)			
Assets				
Current Assets	164.9	228.6	1,610.6	1,792.0
Noncurrent Assets				
Property, Plant, and Equipment (PP&E)				
Gross	866.4	956.9	3,426.6	3,504.7
Accumulated Depreciation, Depletion, and Amortization (DD&A)	-396.2	-444.7	-1,623.4	-1,666.3
Net PP&E	470.1	512.2	1,803.3	1,838.3
Investments and Advances	54.5	65.4	145.6	202.8
Other Noncurrent Assets	99.0	112.1	3,212.4	3,411.6
Subtotal Noncurrent Assets	623.6	689.7	3,361.5	3,508.0
Total Assets	788.5	918.3	6,771.9	7,244.8
Liabilities and Stockholders Equity				
Liabilities				
Current Liabilities	150.7	190.8	1,134.3	1,251.1
Long-Term Debt	148.9	166.3	1,557.8	1,554.8
Other Long-Term Items	161.3	181.6	1,790.8	1,849.9
Minority Interest	10.4	12.3	73.8	92.9
Subtotal Liabilities and Other Items	471.4	550.9	4,556.8	4,748.6
Stockholders' Equity				
Retained Earnings	218.7	262.9	1,157.4	1,371.5
Other Equity	98.4	104.4	1,057.8	1,124.6
Subtotal Stockholders' Equity	317.1	367.4	2,215.1	2,496.2
Total Liabilities and Stockholders' Equity	788.5	918.3	6,771.9	7,244.8
Financial Ratios	(percent)			
Net Income/Stockholders' Equity	18.1	22.1	13.2	14.3
Net Income plus Interest/Total Invested Capital	14.2	17.2	10.5	11.2
Dividends/Net Cash Flow from Operations	40.7	26.9	16.0	16.1
Long-term Debt/Stockholders' Equity	47.0	45.3	70.3	62.3

Sources: Standard & Poor's (S&P) Industrials data are extracted from the S&P 500 Index, excluding the Financial, Utilities, and Transportation, sectors, using Research Insight, a data service of Standard & Poor's. FRS companies' data - Energy Information Administration, Form EIA-28 (Financial Reporting System).

Table B4. Consolidated Balance Sheet for FRS Companies, 1998-2004
(Billion Dollars)

Balance Sheet Items	1998	1999	2000	2001	2002	2003	2004
Assets							
Current Assets							
Cash & Marketable Securities	8.1	12.2	18.7	18.6	19.5	27.0	55.6
Trade Accounts & Notes Receivable	47.8	68.1	98.6	71.4	78.7	84.9	112.1
Inventories							
Raw Materials & Products	21.6	23.3	25.6	23.4	23.2	26.8	29.5
Materials & Supplies	3.8	3.9	4.4	7.3	7.6	5.6	6.2
Other Current Assets	12.9	13.4	49.1	26.7	27.4	20.6	25.2
Total Current Assets	94.2	121.0	196.5	147.5	156.3	164.9	228.6
Non-current Assets							
Property, Plant & Equipment (PP&E)							
Gross PP&E	671.0	708.0	757.2	806.0	826.3	866.4	956.9
Accumulated Depreciation, Depletion, and Amortization	-334.5	-355.5	-351.6	-373.6	-379.6	-396.2	-444.7
Net PP&E	336.5	352.5	405.5	432.4	446.6	470.1	512.2
Investments & Advances to Unconsolidated Affiliates	53.9	58.2	62.3	57.3	53.9	54.5	65.4
Other Non-current Assets	35.8	39.6	86.9	97.9	115.7	99.0	112.1
Total Non-current Assets	426.3	450.3	554.8	587.5	616.2	623.6	689.7
Total Assets	520.4	571.3	751.2	735.0	772.5	788.5	918.3
Liabilities & Stockholders' Equity							
Liabilities							
Current Liabilities							
Trade Accounts & Notes Payable	62.8	79.4	102.4	90.6	91.8	88.2	111.7
Other Current Liabilities	51.1	51.9	96.4	69.2	64.9	62.5	79.1
Long-Term Debt	94.6	104.0	120.0	132.0	154.0	148.9	166.3
Deferred Income Tax Credits	49.0	53.1	68.2	77.0	76.1	83.2	94.2
Other Deferred Credits	18.4	18.8	34.1	23.3	27.9	28.5	30.8
Other Long-Term Items	39.7	42.6	41.2	43.7	52.1	49.7	56.6
Minority Interest in Consolidated Affiliates	10.4	15.2	17.1	15.5	11.0	10.4	12.3
Total Liabilities	326.0	364.9	479.5	451.3	477.8	471.4	550.9
Stockholders' Equity:							
Retained Earnings	165.8	170.6	199.2	209.7	206.1	218.7	262.9
Other Equity	28.7	35.7	72.5	74.0	88.7	98.4	104.4
Total Stockholders' Equity	194.4	206.3	271.8	283.7	294.7	317.1	367.4
Total Liabilities & Stockholders' Equity	520.4	571.3	751.2	735.0	772.5	788.5	918.3
Memo:							
Foreign Currency Translation Adjustment Cumulative at Year End	-2.3	-2.7	-3.0	-5.1	-2.0	2.8	8.0
Foreign Currency Translation Adjustment for the Current Year	0.0	-0.3	-2.1	-1.0	3.1	7.2	4.3

Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

Table B5. Consolidating Statement of Income for FRS Companies, 2004
(Million Dollars)

Income Statement Items	Consol- -idated	Eliminations & Nontraceables	Petroleum	Coal, Nuclear, & Non- conventional Energy ¹	Down- stream Natural Gas	Electric Power	Non- energy
Operating Revenues	1,127,699	-117,566	906,005	3,484	225,195	40,014	70,567
Operating Expenses							
General Operating Expenses	943,196	-115,329	737,956	2,197	217,776	36,957	63,640
Depreciation, Depletion, & Allowance	47,180	939	39,327	191	3,065	W	3,036
General & Administrative	14,881	2,501	8,338	107	1,837	W	1,235
Total Operating Expenses	1,005,258	-111,889	785,620	2,495	222,678	38,443	67,911
Operating Income	122,442	-5,677	120,385	989	2,517	1,571	2,657
Other Revenue & (Expense)							
Earnings of Unconsolidated Affiliates	13,891	-123	9,821	W	W	W	2,131
Other Dividend & Interest Income	2,401	2,401	-	-	-	-	-
Gain/Loss on Disposition of Property, Plant, & Equipment	1,780	51	1,653	W	W	W	W
Interest Expenses & Financial Charges	-10,938	-10,938	-	-	-	-	-
Minority Interest in Income	-2,105	-2,105	-	-	-	-	-
Foreign Currency Translation Effects	-65	-65	-	-	-	-	-
Other Revenue & (Expense)	1,563	1,563	-	-	-	-	-
Total Other Revenue & (Expense)	6,527	-9,217	11,473	315	2,152	-229	2,032
Pretax Income	128,968	-14,894	131,858	1,304	4,669	1,342	4,689
Income Tax Expense	48,356	-5,323	50,657	237	1,687	703	395
Discontinued Operations	W	W	395	0	W	0	W
Extraordinary Items and Cumulative Effect of Accounting Changes	W	W	0	0	W	0	W
Net Income	81,087	-9,678	81,596	1,067	3,224	639	4,239

¹Beginning in 2003, Coal is combined with Other Energy (Nuclear and Nonconventional Energy).

- = Not available.

W = Data withheld to avoid disclosure.

Note: Sum of components may not equal total due to independent rounding, eliminations, and nontraceables.

Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

Table B6. Consolidating Statement of Income for FRS Companies, U.S. and Foreign Petroleum Segments, 2004
(Million Dollars)

Income Statement Items	U.S. Petroleum				Foreign Petroleum		
	Consolidated	Production	Refining/Marketing	Pipe-lines ¹	Consolidated	Production	Refining/Marketing & Int'l Marine ²
Operating Revenues							
Raw Material Sales	169,016	86,700	124,404	W	117,190	86,792	95,400
Refined Products Sales	409,418	0	410,408	0	214,876	W	215,135
Transportation Revenues	3,767	72	2,521	2,347	2,517	W	5,643
Management and Processing Fees	1,543	2,397	1,589	W	2,077	246	2,091
Other	12,997	1,343	11,667	W	3,367	36	3,355
Total Operating Revenues	596,741	90,512	550,589	6,329	340,027	87,145	321,624
Operating Expenses							
General Operating Expenses	503,132	27,910	520,415	5,496	265,587	24,543	309,790
Depreciation, Depletion, & Allowance	21,869	16,019	5,575	275	17,458	15,099	2,359
General & Administrative	6,635	2,043	4,503	89	1,703	939	764
Total Operating Expenses	531,635	45,973	530,493	5,860	284,748	40,581	312,913
Operating Income	65,106	44,540	20,097	469	55,279	46,564	8,711
Other Revenue & (Expense)							
Earnings of Unconsolidated Affiliates	3,944	1,899	W	W	5,877	4,420	1,457
Gain(Loss) on Disposition of Property, Plant, & Equipment	1,147	765	W	W	506	453	53
Total Other Revenue & (Expense)	5,090	2,664	2,052	374	6,383	4,873	1,510
Pretax Income	70,196	47,204	22,149	843	61,662	51,437	10,221
Income Tax Expense	24,743	16,998	7,439	306	25,914	23,002	2,911
Discontinued Operations	241	155	86	0	154	154	0
Extraordinary Items and Cumulative Effect of Accounting Changes	0	0	0	0	0	0	0
Contribution To Net Income	45,694	30,361	14,796	537	35,902	28,589	7,310

¹Beginning in 2003, natural gas and natural gas liquids pipelines are part of the downstream natural gas line of business. See Table B35.

²Foreign Refining/Marketing and International Marine are combined to avoid disclosure.

W = Data withheld to avoid disclosure.

Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

Table B7. Net Property, Plant, and Equipment (PP&E), Additions to PP&E, Investments and Advances, and Depreciation, Depletion, and Amortization (DD&A), by Lines of Business for FRS Companies, 2004
(Million Dollars)

	Year End Balance		Activity During Year		
	Net PP&E	Investments & Advances	Additions to PP&E	Additions to Investments & Advances	DD&A
Petroleum					
United States					
Production	146,272	4,241	28,758	220	16,019
Refining/Marketing					
Refining	54,290	5,239	7,555	553	3,840
Marketing	16,185	805	1,283	20	1,339
Refining/Marketing Transport					
Pipelines	1,362	608	124	38	249
Marine	1,894	W	846	W	188
Other	716	W	330	W	177
Total U.S. Refining/Marketing	74,447	7,183	10,138	792	5,794
Rate Regulated Pipelines					
Refined Products	3,136	1,184	1,536	181	55
Crude Oil and Liquids	4,800	382	327	-18	220
Total Rate Regulated Pipelines	7,936	1,566	1,863	163	275
Total U.S. Petroleum	228,655	12,990	40,759	1,175	22,088
Foreign					
Production	145,255	21,971	24,727	5,076	15,099
Refining/Marketing & International Marine ¹	30,972	7,094	3,275	-339	2,359
Total Foreign Petroleum	176,227	29,065	28,002	4,737	17,458
Total Petroleum	404,882	42,055	68,761	5,912	39,546
Downstream Natural Gas					
United States					
Processing and Gathering					
NGL Production	3,150	460	641	W	W
Other Processing and Gathering	6,029	W	W	W	483
LNG Import/Export Facilities	590	W	W	0	W
Total Processing and Gathering	9,769	767	1,338	23	676
Marketing/Trading	W	34	W	-13	W
Transmission					
Pipelines	15,213	2,122	1,665	W	802
Storage	1,181	W	69	0	52
Other	6,150	W	243	W	93
Total Transmission	22,544	2,128	1,977	-18	947
Total Distribution	W	0	W	0	W
Total U.S. Downstream Natural Gas	37,251	2,929	3,496	-8	2,094
Total Foreign Downstream Natural Gas	11,551	4,135	1,795	235	971
Total Downstream Natural Gas	48,802	7,064	5,291	227	3,065

¹Foreign Refining/Marketing and International Marine combined to avoid disclosure.

W = Data withheld to avoid disclosure.

Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

Table B7. Net Property, Plant, and Equipment (PP&E), Additions to PP&E, Investments and Advances, and Depreciation, Depletion, and Amortization (DD&A), by Lines of Business for FRS Companies, 2004 (Continued)
(Million Dollars)

	Year End Balance		Activity During Year		
	Net PP&E	Investments & Advances	Additions to PP&E	Additions to Investments & Advances	DD&A
Electric Power					
United States					
Generation					
Regulated	W	W	W	W	W
Non-Regulated	W	W	W	W	W
Total Generation	9,528	1,367	W	103	319
Marketing/Trading	W	W	W	W	16
Transmission	W	W	W	0	W
Distribution	W	0	W	W	W
Total U.S. Electric Power	15,105	1,380	1,030	104	591
Total Foreign Electric Power	1,876	2,352	157	W	W
Total Electric Power	16,981	3,732	1,187	W	W
Nuclear, Nonconventional, & Coal					
Foreign	W	W	W	W	101
United States	W	W	W	W	90
Total Nuclear, Nonconventional, & Coal	3,905	457	697	107	191
Nonenergy					
Foreign Chemicals	7,485	3,613	434	192	673
U.S. Chemicals	18,144	5,820	1,795	54	2,283
Foreign Other Nonenergy	W	1,607	W	W	W
U.S. Other Nonenergy	W	679	W	W	W
Total Nonenergy	27,435	11,719	2,311	110	3,036
Nontraceable	10,201	354	1,656	101	939
Consolidated	512,206	65,381	79,903	6,651	47,399

W = Data withheld to avoid disclosure.

Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

Table B8. Return on Investment for Lines of Business for FRS Companies Ranked by Total Energy Assets, 2003-2004
(Percent)

Line of Business	All FRS		Top Four		Five through Twelve		All Other	
	2003	2004	2003	2004	2003	2004	2003	2004
Petroleum	13.4	18.3	13.4	19.5	14.7	16.3	11.8	16.8
U.S. Petroleum	13.7	18.9	13.9	21.4	14.8	16.6	11.8	17.2
Oil and Gas Production	16.5	20.2	17.4	26.3	16.8	16.9	13.2	15.0
Refining/Marketing	9.3	18.1	9.1	17.0	7.7	16.0	10.4	20.6
Pipelines	11.5	5.7	9.3	5.0	13.3	6.3	20.9	8.7
Foreign Petroleum	13.0	17.5	12.9	18.1	14.3	15.5	11.9	15.7
Oil and Gas Production	14.2	17.1	14.5	17.7	14.6	15.5	11.8	15.6
Refining/Marketing	7.7	18.6	7.7	18.7	⁽²⁾	0.0	12.5	16.2
International Marine	W	W	W	W	0.0	0.0	0.0	0.0
Downstream Natural Gas¹	8.8	5.8	20.4	13.4	3.6	4.9	2.1	-7.5
Electric Power¹	5.2	3.1	7.8	0.8	4.6	3.8	0.0	W
Nuclear, Nonconventional, & Coal	2.8	24.5	18.9	28.7	-111.3	-13.9	13.5	W
Nonenergy	2.4	10.8	7.0	13.2	-10.8	1.4	2.4	10.5

¹The downstream natural gas and electric power lines of business were added to the EIA-28 survey form beginning with the 2003 reporting year.

²Not meaningful.

W = Data withheld to avoid disclosure.

Note: Return on investment measured as contribution to net income/net investment in place.

Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

Table B9. Research and Development Expenditures for FRS Companies, 1998-2004
(Million Dollars)

	1998	1999	2000	2001	2002	2003	2004
Sources of R&D Funds							
Federal Government	W	27	W	W	W	W	12
Internal Company	1,668	1,377	1,316	1,542	1,742	1,523	1,508
Other Sources	W	20	W	W	W	W	25
Total Sources	1,707	1,424	1,326	1,570	1,753	1,534	1,545
Breakdown of R&D Expenditures							
Oil & Gas Recovery	606	430	453	592	464	370	507
Gas to Liquids	0	0	0	0	0	52	38
Other Petroleum	365	345	327	376	656	357	267
Coal Gasification/Liquefaction	W	W	W	0	0	W	W
Other Coal	W	W	0	0	0	0	0
Downstream Natural Gas	-	-	-	-	-	7	0
Wind Generation	-	-	-	-	-	0	0
Solar Generation	-	-	-	-	-	4	W
Distributed Generation	-	-	-	-	-	0	0
Fuel Cells	-	-	-	-	-	7	W
Other Nonconventional Energy	28	34	W	W	59	54	113
Nonenergy	616	538	452	526	517	676	606
Unassigned	85	W	W	W	W	W	0
Total Expenditures	1,707	1,424	1,326	1,570	1,753	1,534	1,545

- = Data not available prior to 2003.

W = Data withheld to avoid disclosure.

Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

Table B10. Size Distribution of Net Investment in Place for FRS Companies Ranked by Total Energy Assets, 2004 (Percent)

Line of Business	Top Four	through Twelve	All Other	All FRS
Petroleum	58.7	19.5	21.7	100.0
United States	44.2	26.2	29.7	100.0
Production	40.1	32.6	27.3	100.0
Refining/Marketing	47.8	16.5	35.7	100.0
Refining	45.6	14.7	39.6	100.0
Marketing	52.0	19.9	28.1	100.0
Rate Regulated Pipelines	77.9	7.7	14.4	100.0
Foreign	75.9	11.7	12.4	100.0
Production	72.0	14.3	13.7	100.0
Refining/Marketing	92.9	0.0	7.1	100.0
International Marine	100.0	0.0	0.0	100.0
Downstream Natural Gas	23.9	66.6	9.5	100.0
U.S. Downstream Natural Gas	10.8	82.4	6.7	100.0
Processing and Gathering	25.1	58.3	16.5	100.0
Marketing/Trading	5.3	94.7	0.0	100.0
Transmission	6.4	91.9	1.8	100.0
Distribution	0.0	77.3	22.7	100.0
Foreign Downstream Natural Gas	57.3	26.1	16.6	100.0
Electric Power	15.4	83.6	1.0	100.0
U.S. Electric Power	6.1	92.7	1.2	100.0
Generation	9.2	88.9	1.9	100.0
Marketing/Trading	0.0	102.9	-2.9	100.0
Transmission	0.0	100.0	0.0	100.0
Distribution	0.0	100.0	0.0	100.0
Foreign Electric Power	51.6	48.4	0.0	100.0
Generation	51.6	48.4	0.0	100.0
Marketing/Trading	0.0	0.0	0.0	100.0
Transmission	0.0	0.0	0.0	100.0
Distribution	0.0	0.0	0.0	100.0
Nuclear, Nonconventional, & Coal	76.4	6.1	17.5	100.0
Nonenergy	64.9	15.7	19.5	100.0
Chemicals	66.7	12.2	21.2	100.0
Other Nonenergy	49.7	45.5	4.9	100.0
Consolidated	54.7	25.8	19.5	100.0

Note: Sum of components may not equal total due to independent rounding, eliminations, and nontraceables.

Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

Table B11. Consolidated Statement of Cash Flows for FRS Companies, 1998-2004
(Million Dollars)

Cash Flows ¹	1998	1999	2000	2001	2002	2003	2004
Cash Flows From Operations							
Net Income	12,519	22,866	53,192	37,735	20,592	57,427	81,087
Minority Interest in Income	764	1,161	1,912	2,172	1,068	1,719	2,105
Noncash Items:							
Depreciation, Depletion, & Allowance	35,445	32,452	37,621	46,377	45,529	43,854	47,401
Dry Hole Expense, This Year	2,518	1,808	1,328	2,344	1,925	1,668	1,951
Deferred Income Taxes	-1,123	-25	5,611	3,145	-143	6,033	3,999
Recognized Undistributed (Earnings)/Losses of Unconsolidated Affiliates	2,987	136	-3,319	-318	1,144	-1,429	-4,553
(Gain)/Loss on Disposition of Property, Plant, & Equipment (PP&E)	-2,658	-1,922	-2,065	-1,176	-1,374	-1,908	-1,780
Changes in Operating Assets and Liabilities and Other Noncash Items	-3,792	-2,259	-6,269	2,848	-636	-661	6,504
Other Cash Items, Net	1,502	581	629	-3,490	6,847	-1,585	-872
Net Cash Flow From Operations	48,162	54,798	88,640	89,637	74,952	105,118	135,842
Cash Flows From Investing Activities							
Additions to PP&E:							
Due to Mergers and Acquisitions	-18,868	-5,961	-49,722	-40,971	-34,175	-11,367	-10,122
Other	-51,046	-44,775	-52,470	-59,313	-57,170	-65,054	-69,766
Total Additions to PP&E	-69,914	-50,736	-102,192	-100,284	-91,345	-76,421	-79,888
Additions to Investments and Advances	-5,223	-6,874	-7,156	-10,086	-7,529	-3,542	-6,651
Proceeds From Disposals of PP&E	16,243	13,267	26,663	7,683	15,186	16,112	19,690
Other Investment Activities, Net	4,235	3,523	8,742	8,406	29,572	4,572	4,863
Cash Flow From Investing Activities	-54,659	-40,820	-73,943	-94,281	-54,116	-59,279	-61,986
Cash Flows From Financing Activities							
Proceeds From Long-Term Debt	27,072	29,862	33,292	54,987	34,094	26,352	18,532
Proceeds From Equity Security Offerings	9,112	3,557	30,606	6,267	4,878	8,397	8,126
Reductions in Long-Term Debt	-18,019	-24,988	-29,323	-34,264	-27,863	-26,222	-18,412
Purchase of Treasury Stock	-5,776	-424	-5,362	-7,474	-4,680	-6,059	-14,011
Dividends to Shareholders	-17,169	-16,081	-18,981	-17,132	-17,744	-42,808	-36,541
Other Financing Activities, Including Net Change in Short-Term Debt	6,859	-3,377	-17,205	3,848	-7,063	2,496	-11,212
Cash Flow From Financing Activities	2,079	-11,451	-6,973	6,232	-18,378	-37,844	-53,518
Effect of Exchange Rate on Cash	-13	-24	-119	-308	571	816	869
Net Increase/(Decrease) in Cash and Cash Equivalents	-4,431	2,503	7,605	1,280	3,029	8,811	21,207

¹ Items that add to cash are positive, and items that use cash are shown as negative values.

Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

Table B12. Composition of Income Taxes for FRS Companies, 1998-2004
(Million Dollars)

	1998	1999	2000	2001	2002	2003	2004
Income Taxes (as per Financial Statements)							
Current Paid or Accrued:							
U.S. Federal, before Investment Tax Credit & Alternative Minimum Tax	603	1,375	11,705	8,812	390	7,516	16,114
U.S. Federal Investment Tax Credit	-85	-90	-129	-246	-245	-236	-201
Effect of Alternative Minimum Tax	-16	445	-1,222	-632	69	-330	-459
U.S. State & Local Income Taxes	443	371	1,338	1,067	478	1,094	2,026
Foreign Income Taxes							
Canada	456	597	1,765	1,139	1,236	1,567	2,381
Europe and Former Soviet Union ¹	1,798	3,110	7,002	6,515	5,619	6,858	11,199
Africa	449	1,607	3,617	3,057	2,884	3,851	6,086
Middle East	745	1,286	2,380	1,937	1,753	2,115	2,674
Other Eastern Hemisphere	992	1,679	2,214	1,676	1,674	2,763	3,017
Other Western Hemisphere	428	346	900	695	669	1,127	1,846
Total Foreign	4,868	8,625	17,878	15,019	13,835	18,281	27,203
Total Current	5,813	10,726	29,570	24,020	14,527	26,325	44,683
Deferred							
U.S. Federal, before Investment Tax Credit	-373	1,480	3,168	2,403	241	4,770	2,285
U.S. Federal Investment Tax Credit	-28	-14	-78	-10	-18	-17	-17
Effect of Alternative Minimum Tax	-16	-415	1,233	650	-69	335	445
U.S. State & Local Income Taxes	104	136	221	26	76	310	112
Foreign	-791	-1,075	910	567	-191	569	848
Total Deferred	-1,104	112	5,454	3,636	39	5,967	3,673
Total Income Tax Expense	4,709	10,838	35,024	27,656	14,566	32,292	48,356
Reconciliation of Accrued U.S. Federal Income Tax Expense To Statutory Rate							
Consolidated Pretax Income/(Loss)	16,017	33,837	86,702	68,246	36,171	89,522	128,968
Less: Foreign Source Income not Subject to U.S. Tax	251	2,160	13,355	8,918	8,816	17,818	28,635
Equals: Income Subject to U.S. Tax	15,766	31,677	73,347	59,328	27,355	71,704	100,333
Less: U.S. State & Local Income Taxes	570	486	1,497	895	345	955	2,092
Less: Applicable Foreign Income Taxes Deducted	32	107	353	82	252	315	330
Equals: Pretax Income Subject to U.S. Tax	15,164	31,084	71,497	58,351	26,758	70,434	97,911
Tax Provision Based on Previous Line	5,332	10,902	25,032	20,438	9,363	24,657	33,761
Increase/(Decrease) in Taxes Due To:							
Foreign Tax Credits Recognized	-3,563	-5,963	-9,787	-8,513	-7,283	-11,385	-14,646
U.S. Federal Investment Tax Credit Recognized	-124	-98	-129	-486	-245	-257	-239
Statutory Depletion	-30	-8	-3	-1	-3	-6	-6
Effect of Alternative Minimum Tax	-16	23	11	16	0	0	-13
Other	-1,485	-2,068	-447	-582	-1,462	-963	-838
Actual U.S. Federal Tax Provision (Refund)	114	2,788	14,677	10,872	370	12,046	18,019

¹ OECD Europe combined with the former Soviet Union and Eastern Europe to avoid disclosure.
Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

**Table B13. U.S. Taxes Other Than Income Taxes for FRS Companies,
1998-2004**
(Million Dollars)

	1998	1999	2000	2001	2002	2003	2004
Production Taxes							
Oil and Gas Production	1,176	1,674	2,604	2,506	2,187	3,127	3,525
Coal, Nuclear, & Nonconventional Energy	47	43	W	W	35	W	34
Other ¹	0	0	W	W	0	W	0
Total Production Taxes	1,223	1,717	2,635	2,543	2,222	3,154	3,559
Superfund	W	W	W	W	W	W	W
Import Duties	W	W	W	W	W	W	W
Sales, Use, and Property	2,648	2,268	2,356	2,373	2,360	2,023	2,422
Payroll	1,357	1,289	1,259	1,193	1,121	1,134	1,188
Other Taxes	360	467	789	546	378	403	615
Total Taxes Paid (Other Than Income Taxes)	5,660	5,825	7,162	6,741	6,156	5,067	5,637
Excise Taxes Collected	39,918	46,293	47,084	44,310	43,464	41,907	45,406

¹ Nonenergy, and beginning in 2003, Downstream Natural Gas.

W = Data withheld to avoid disclosure.

Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

Table B14. Oil and Gas Exploration and Development Expenditures for FRS Companies, United States and Foreign, 1998-2004
(Million Dollars)

	1998	1999	2000	2001	2002	2003	2004
United States							
Exploration							
Acquisition of Unproved Acreage	3,912	633	4,010	3,527	2,281	1,389	2,575
Geological and Geophysical	916	621	849	758	821	659	859
Drilling and Equipping ¹	2,964	1,921	2,550	3,276	2,555	2,525	2,279
Other	954	659	610	770	832	703	871
Total Exploration	8,746	3,834	8,019	8,331	6,489	5,276	6,584
Development							
Acquisition of Proved Acreage	3,568	1,144	27,939	7,383	7,572	6,051	7,586
Lease Equipment	2,688	2,431	1,907	3,818	3,325	3,636	3,839
Drilling and Equipping ¹	7,769	5,022	8,788	11,671	10,711	10,581	12,871
Other ²	1,657	1,056	1,391	2,655	3,715	1,652	1,510
Total Development	15,682	9,653	40,025	25,527	25,323	21,920	25,806
Total U.S. Exploration and Development	24,428	13,487	48,044	33,858	31,812	27,196	32,390
Foreign							
Exploration							
Acquisition of Unproved Acreage	2,159	2,252	4,105	4,696	2,588	1,346	610
Geological and Geophysical	1,065	885	875	1,028	939	866	965
Drilling and Equipping ¹	2,650	1,579	1,824	2,677	2,108	2,243	2,528
Other	1,299	903	1,087	1,146	864	949	875
Total Exploration	7,173	5,619	7,891	9,547	6,499	5,404	4,978
Development							
Acquisition of Proved Acreage	7,121	2,083	11,644	12,186	8,600	3,060	468
Lease Equipment	2,505	2,142	1,842	3,186	2,538	4,701	4,670
Drilling and Equipping ¹	6,206	5,143	5,057	7,060	8,040	9,793	11,277
Other ²	3,388	2,531	2,364	3,965	5,695	5,250	3,943
Total Development	19,220	11,899	20,907	26,397	24,873	22,804	20,358
Total Foreign Exploration and Development	26,393	17,518	28,798	35,944	31,372	28,208	25,336

¹ Expenditure incurred in a given year not cumulative (includes work-in-progress adjustment).

² Includes support equipment.

Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

Table B15. Components of U.S. and Foreign Exploration and Development Expenditures for FRS Companies, 2004
(Million Dollars)

	Worldwide	United States			Foreign
		Total	Onshore	Offshore	
Exploration and Development Expenditures					
Exploration Expenditures					
Unproved Acreage	3,185	2,575	1,852	723	610
Drilling and Equipping:					
Completed Well Costs	-	1,957	832	1,125	-
Work-in-progress Adjustment	-	322	127		-
Total Drilling and Equipping	4,807	2,279	959	1,320	2,528
Geological and Geophysical	1,824	859	252	607	965
Other, Including Direct Overhead	1,746	871	210	661	875
Total Exploration Expenditures	11,562	6,584	3,273	3,311	4,978
Development Expenditures					
Proved Acreage (Including Mergers and Acquisitions)	8,054	7,586	6,730	856	468
Drilling and Equipping:					
Completed Well Costs	-	10,110	8,368	1,742	-
Work-in-progress Adjustment	-	2,761	1,172	1,589	-
Total Drilling and Equipping	24,148	12,871	9,540	3,331	11,277
Lease Equipment	8,509	3,839	1,279	2,560	4,670
Other Development					
Support Equipment	560	278	238	40	282
Other, Including Direct Overhead	4,893	1,232	800	432	3,661
Total Development Expenditures	46,164	25,806	18,587	7,219	20,358
Total Exploration and Development Expenditures	57,726	32,390	21,860	10,530	25,336

- = Not available.

Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

Table B16. Exploration and Development Expenditures by Region for FRS Companies, 1998-2004
(Million Dollars)

	1998	1999	2000	2001	2002	2003	2004
Exploration Expenditures							
U.S. Onshore	3,941	1,174	4,136	4,779	3,023	1,813	3,273
U.S. Offshore	4,805	2,660	3,883	3,552	3,466	3,463	3,311
Total United States	8,746	3,834	8,019	8,331	6,489	5,276	6,584
Canada	638	420	1,184	3,899	1,694	1,311	1,313
OECD Europe	1,916	767	869	756	1,223	629	414
Former Soviet Union and E. Europe	630	354	317	374	470	691	294
Africa	1,092	1,268	910	1,579	1,292	1,645	1,345
Middle East	141	96	56	197	121	132	127
Other Eastern Hemisphere	1,563	1,192	1,675	1,478	1,121	662	884
Other Western Hemisphere	1,193	1,522	2,880	1,264	578	334	601
Total Foreign	7,173	5,619	7,891	9,547	6,499	5,404	4,978
Worldwide Exploration Expenditures	15,919	9,453	15,910	17,878	12,988	10,680	11,562
Development Expenditures							
U.S. Onshore	9,519	5,396	22,953	19,465	19,307	12,930	18,587
U.S. Offshore	6,163	4,257	17,072	6,062	6,016	8,990	7,219
Total United States	15,682	9,653	40,025	25,527	25,323	21,920	25,806
Canada	4,168	1,636	3,697	11,425	4,993	3,592	4,005
OECD Europe	6,670	3,370	6,651	4,617	8,571	5,101	3,994
Former Soviet Union and E. Europe	637	252	576	507	803	1,429	1,748
Africa	2,042	1,826	1,809	3,968	3,799	7,542	5,556
Middle East	801	297	494	542	653	844	1,144
Other Eastern Hemisphere	2,386	2,250	5,112	3,513	5,074	3,499	2,877
Other Western Hemisphere	2,516	2,268	2,568	1,826	980	797	1,034
Total Foreign	19,220	11,899	20,907	26,397	24,873	22,804	20,358
Worldwide Development Expenditures	34,902	21,552	60,932	51,924	50,196	44,724	46,164
Total Exploration and Development Expenditures							
U.S. Onshore	13,460	6,570	27,089	24,244	22,330	14,743	21,860
U.S. Offshore	10,968	6,917	20,955	9,614	9,482	12,453	10,530
Total United States	24,428	13,487	48,044	33,858	31,812	27,196	32,390
Canada	4,806	2,056	4,881	15,324	6,687	4,903	5,318
OECD Europe	8,586	4,137	7,520	5,373	9,794	5,730	4,408
Former Soviet Union and E. Europe	1,267	606	893	881	1,273	2,120	2,042
Africa	3,134	3,094	2,719	5,547	5,091	9,187	6,901
Middle East	942	393	550	739	774	976	1,271
Other Eastern Hemisphere	3,949	3,442	6,787	4,991	6,195	4,161	3,761
Other Western Hemisphere	3,709	3,790	5,448	3,090	1,558	1,131	1,635
Total Foreign	26,393	17,518	28,798	35,944	31,372	28,208	25,336
Worldwide Exploration and Development Expenditures	50,821	31,005	76,842	69,802	63,184	55,404	57,726

Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

Table B17. Production (Lifting) Costs by Region for FRS Companies, 1998-2004
(Million Dollars)

	1998	1999	2000	2001	2002	2003	2004
United States							
Taxes Other Than Income Taxes	1,176	1,674	2,604	2,506	2,187	3,127	3,525
Other Costs	9,787	9,494	8,417	10,377	10,345	10,424	11,167
Total Production Costs	10,963	11,168	11,021	12,883	12,532	13,551	14,692
U.S. Onshore	8,198	8,039	8,254	9,838	9,650	10,549	11,216
U.S. Offshore	2,765	3,129	2,767	3,045	2,882	3,002	3,476
Canada							
Royalty Expenses	W	W	W	0	0	0	0
Taxes Other Than Income Taxes	W	W	W	105	109	119	117
Other Costs	1,037	1,120	1,379	1,842	2,303	2,818	2,596
Total Production Costs	1,129	1,252	1,496	1,947	2,412	2,937	2,713
OECD Europe							
Royalty Expenses	251	62	W	W	49	W	W
Taxes Other Than Income Taxes	269	330	W	W	456	W	W
Other Costs	3,980	3,666	3,485	3,496	3,416	4,098	4,101
Total Production Costs	4,500	4,058	4,025	4,151	3,921	4,884	4,734
Former Soviet Union and E. Europe							
Royalty Expenses	W	W	W	W	0	0	W
Taxes Other Than Income Taxes	W	W	W	W	0	30	W
Other Costs	207	111	179	155	111	177	269
Total Production Costs	208	148	196	191	111	207	327
Africa							
Royalty Expenses	W	W	W	W	0	0	0
Taxes Other Than Income Taxes	W	W	W	W	377	590	779
Other Costs	1,194	1,153	1,208	1,384	1,730	1,743	2,101
Total Production Costs	1,490	1,268	1,784	1,847	2,107	2,333	2,880
Middle East							
Royalty Expenses	130	112	137	0	0	0	0
Taxes Other Than Income Taxes	49	77	75	55	46	20	24
Other Costs	250	235	175	407	502	516	539
Total Production Costs	429	424	387	462	548	536	563
Other Eastern Hemisphere							
Royalty Expenses and							
Taxes Other Than Income Taxes	240	507	618	527	580	675	922
Other Costs	1,074	1,097	1,392	1,931	2,002	1,836	2,573
Total Production Costs	1,314	1,604	2,010	2,458	2,582	2,511	3,495
Other Western Hemisphere							
Royalty Expenses and							
Taxes Other Than Income Taxes	87	184	304	143	276	392	500
Other Costs	552	443	533	600	633	578	549
Total Production Costs	639	627	837	743	909	970	1,049
Total Foreign							
Royalty Expenses	740	384	437	153	150	W	W
Taxes Other Than Income Taxes	675	1,172	1,947	1,831	1,743	W	W
Other Costs	8,294	7,825	8,351	9,815	10,697	11,766	12,728
Total Production Costs	9,709	9,381	10,735	11,799	12,590	14,378	15,761

W = Data withheld to avoid disclosure.

Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

Table B18. Oil and Gas Acreage for FRS Companies, 1998-2004
(Thousand Acres)

	1998	1999	2000	2001	2002	2003	2004
Net Acreage							
U.S. Onshore							
Developed	26,396	25,895	31,760	34,332	37,103	36,721	38,287
Undeveloped	30,598	25,880	37,657	43,293	40,280	42,891	39,891
U.S. Offshore							
Developed	4,634	4,988	5,383	5,881	5,281	5,375	5,520
Undeveloped	23,168	24,940	21,483	20,933	21,929	20,875	22,006
Foreign							
Developed	24,887	26,337	32,535	32,903	37,603	33,952	33,561
Undeveloped	514,511	416,209	416,941	424,465	429,394	312,769	273,697
Gross Acreage							
U.S. Onshore							
Developed	49,097	45,978	57,626	63,721	69,641	65,367	64,704
Undeveloped	51,364	42,325	59,295	69,790	64,841	66,918	62,194
U.S. Offshore							
Developed	8,861	9,534	10,588	11,317	9,802	9,331	9,818
Undeveloped	32,439	35,689	31,609	30,523	32,384	31,134	32,548
Foreign							
Developed	64,358	59,247	71,330	70,112	81,171	70,516	65,597
Undeveloped	1,083,355	835,615	882,761	834,500	799,007	608,666	532,672

Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

Table B19. U.S. Net Wells Completed for FRS Companies and Industry, and Net in-Progress Wells at Year End for FRS Companies, 1998-2004

	1998	1999	2000	2001	2002	2003	2004
Number of Net Wells Completed During Year for FRS Companies							
Onshore							
Net Exploratory Wells							
Dry Holes	159	93	86	122	119	93	86
Oil Wells	55	26	19	59	21	19	27
Gas Wells	142	105	217	351	164	164	226
Total Exploratory Wells	356	225	321	533	304	275	338
Net Development Wells							
Dry Holes	256	162	229	266	220	225	193
Oil Wells	2,510	1,130	1,775	1,815	1,187	1,567	2,009
Gas Wells	2,074	1,519	2,927	5,226	4,982	5,539	6,246
Total Development Wells	4,841	2,812	4,930	7,307	6,389	7,331	8,448
Offshore							
Net Exploratory Wells							
Dry Holes	91	59	73	63	52	43	39
Oil Wells	22	28	28	39	35	20	11
Gas Wells	63	61	59	63	53	36	29
Total Exploratory Wells	176	148	159	165	140	98	78
Net Development Wells							
Dry Holes	32	26	29	38	38	13	14
Oil Wells	115	145	128	240	135	95	84
Gas Wells	133	153	157	170	134	75	67
Total Development Wells	280	324	315	448	307	183	166
Total United States							
Net Exploratory Wells							
Dry Holes	249	153	158	185	171	135	125
Oil Wells	77	54	47	98	56	38	37
Gas Wells	205	166	275	415	217	199	255
Total Exploratory Wells	531	372	480	698	443	373	417
Net Development Wells							
Dry Holes	288	188	258	305	259	238	207
Oil Wells	2,625	1,275	1,903	2,054	1,321	1,662	2,093
Gas Wells	2,208	1,672	3,084	5,396	5,116	5,614	6,313
Total Development Wells	5,121	3,136	5,245	7,755	6,696	7,514	8,614
Number of Net Wells Completed During Year for Total Industry							
Net Exploratory Wells							
Dry Holes	1,647	1,195	1,288	1,692	1,253	1,283	1,367
Oil Wells	291	157	268	322	236	317	310
Gas Wells	504	539	607	988	668	838	958
Total Exploratory Wells	2,442	1,891	2,163	3,002	2,157	2,438	2,635
Net Development Wells							
Dry Holes	3,193	2,217	2,737	2,392	2,328	2,404	2,606
Oil Wells	6,773	4,019	7,090	7,738	5,822	6,967	6,857
Gas Wells	10,640	10,338	15,848	21,095	15,487	18,884	21,715
Total Development Wells	20,606	16,574	25,675	31,225	23,637	28,255	31,178
Number of Net In-Progress Wells At Year End for FRS Companies							
Onshore							
Exploratory Wells							
Exploratory Wells	51	40	70	85	66	84	126
Development Wells							
Development Wells	392	464	716	1,052	1,315	1,209	1,785
Total In-Progress Wells	444	504	786	1,138	1,381	1,293	1,911
Offshore							
Exploratory Wells							
Exploratory Wells	52	68	50	56	55	46	52
Development Wells							
Development Wells	73	87	110	63	47	78	108
Total In-Progress Wells	124	155	160	118	102	124	159
Total United States							
Exploratory Wells							
Exploratory Wells	103	108	120	141	120	130	177
Development Wells							
Development Wells	465	551	826	1,115	1,362	1,286	1,893
Total In-Progress Wells	568	659	946	1,256	1,482	1,416	2,071

Note: Sum of components may not equal total due to independent rounding.

Sources: Industry data - Energy Information Administration, *Monthly Energy Review*, December 2005, Table 5.2. Crude Oil and Natural Gas Wells Drilled.

FRS companies' data - Energy Information Administration, Form EIA-28 (Financial Reporting System).

Table B20. U.S. Net Drilling Footage and Net Producing Wells For FRS Companies and Industry, 1998-2004

	1998	1999	2000	2001	2002	2003	2004
FRS Companies							
Onshore	(thousand feet)						
Exploratory Well Footage							
Dry Hole Footage	1,714	921	955	1,085	1,000	823	821
Oil Well Footage	406	312	199	397	141	152	273
Gas Well Footage	1,548	1,150	1,399	2,016	1,284	1,655	2,213
Total Exploratory Footage	3,668	2,383	2,553	3,498	2,425	2,630	3,307
Development Well Footage							
Dry Hole Footage	1,939	1,252	1,597	2,029	1,716	1,507	1,475
Oil Well Footage	12,513	4,449	9,374	9,435	6,928	8,716	10,352
Gas Well Footage	16,521	12,291	20,516	26,653	32,078	40,507	44,999
Total Development Footage	30,973	17,992	31,487	38,117	40,722	50,730	56,827
Offshore							
Exploratory Well Footage							
Dry Hole Footage	1,345	848	1,151	1,004	652	628	633
Oil Well Footage	443	434	364	551	589	289	172
Gas Well Footage	1,285	1,002	1,141	759	697	504	397
Total Exploratory Footage	3,073	2,284	2,656	2,314	1,938	1,421	1,203
Development Well Footage							
Dry Hole Footage	344	199	411	353	369	165	163
Oil Well Footage	1,428	1,280	1,505	2,260	1,362	1,216	830
Gas Well Footage	1,398	1,295	1,899	1,917	1,370	905	772
Total Development Footage	3,170	2,774	3,815	4,530	3,101	2,286	1,765
Total United States							
Exploratory Well Footage							
Dry Hole Footage	3,059	1,769	2,107	2,089	1,652	1,451	1,454
Oil Well Footage	849	746	563	948	730	441	445
Gas Well Footage	2,833	2,152	2,540	2,775	1,981	2,159	2,611
Total Exploratory Footage	6,741	4,667	5,209	5,812	4,363	4,051	4,510
Development Well Footage							
Dry Hole Footage	2,283	1,451	2,008	2,382	2,085	1,672	1,638
Oil Well Footage	13,941	5,729	10,879	11,695	8,290	9,932	11,182
Gas Well Footage	17,919	13,586	22,415	28,570	33,448	41,412	45,771
Total Development Footage	34,143	20,766	35,303	42,647	43,823	53,016	58,591
Total Industry							
Exploratory Well Footage							
Dry Hole Footage	12,398	7,646	8,965	11,312	8,587	8,826	-
Oil Well Footage	2,505	1,045	1,918	2,435	1,611	1,996	-
Gas Well Footage	4,196	3,315	4,518	6,909	5,062	5,912	-
Total Exploratory Footage	19,098	12,006	15,422	20,656	15,260	16,734	-
Development Well Footage							
Dry Hole Footage	18,005	12,508	14,145	14,013	12,098	14,739	-
Oil Well Footage	32,125	17,705	31,681	36,334	26,401	30,002	-
Gas Well Footage	70,746	52,204	75,736	102,922	87,326	110,559	-
Total Development Footage	120,875	82,417	121,563	153,269	125,825	155,300	-
Number of Net Producing Wells for FRS Companies	(number of wells)						
Onshore							
Oil Wells	69,401	58,987	68,274	66,667	69,021	71,863	69,048
Gas Wells	49,429	44,880	64,696	82,083	89,102	105,439	112,587
Total Producing Wells	118,830	103,867	132,970	148,750	158,123	177,302	181,634
Offshore							
Oil Wells	3,421	2,855	3,536	4,738	4,384	3,777	3,187
Gas Wells	2,737	2,707	3,111	3,606	3,011	2,306	2,264
Total Producing Wells	6,158	5,562	6,647	8,344	7,395	6,083	5,450
Total United States							
Oil Wells	72,822	61,842	71,810	71,405	73,405	75,640	72,234
Gas Wells	52,166	47,587	67,807	85,689	92,113	107,744	114,850
Total Producing Wells	124,987	109,429	139,617	157,094	165,518	183,384	187,085

- = Not available.

Note: Sum of components may not equal total due to independent rounding.

Sources: Well footage, U.S. - special compilation provided by the Office of Oil and Gas, Energy Information Administration. Industry footage total to the annual footage published in the Energy Information Administration's *Monthly Energy Review*, October 2004, p. 84. FRS companies' data - Energy Information Administration, Form EIA-28 (Financial Reporting System).

Table B21. Foreign Net Wells Completed, In-Progress Wells, and Producing Wells by Region for FRS Companies, 1998-2004

	1998	1999	2000	2001	2002	2003	2004
Canada							
Net Wells Completed During Year							
Exploratory Wells							
Dry Holes	54.8	36.4	126.3	106.4	156.6	146.4	106.1
Oil Wells	10.0	25.8	23.3	63.1	74.0	51.0	46.7
Gas Wells	66.3	127.5	194.2	165.9	329.4	454.6	263.6
Total Exploratory Wells	131.1	189.7	343.8	335.4	560.0	652.0	416.4
Development Wells							
Dry Holes	58.8	58.3	138.2	228.8	151.2	161.4	160.3
Oil Wells	198.9	352.1	373.3	818.1	794.1	586.4	547.0
Gas Wells	422.4	758.7	891.5	2,025.1	2,381.1	2,651.9	3,657.6
Total Development Wells	680.1	1,169.1	1,403.0	3,072.1	3,326.4	3,399.7	4,364.9
Net In-Progress Wells at Year End	24.3	76.3	116.8	307.2	190.0	275.8	274.3
Net Producing Wells							
Oil Wells	10,532.3	10,155.9	12,094.8	17,640.5	14,203.0	13,167.6	12,287.0
Gas Wells	8,872.7	10,038.7	15,242.7	25,230.5	26,434.9	28,418.4	31,906.3
Total Producing Wells	19,405.0	20,194.6	27,337.5	42,870.9	40,637.9	41,586.0	44,193.2
Europe and Former Soviet Union ¹							
Net Wells Completed During Year							
Exploratory Wells							
Dry Holes	36.3	15.4	15.7	15.6	11.2	12.7	17.0
Oil Wells	11.8	9.2	5.2	25.9	5.3	6.1	W
Gas Wells	12.0	4.0	6.4	8.6	3.1	3.5	W
Total Exploratory Wells	60.1	28.6	27.3	50.1	19.6	22.3	26.5
Development Wells							
Dry Holes	7.8	2.6	10.3	5.4	4.6	6.0	10.1
Oil Wells	118.5	75.4	67.7	91.8	63.0	98.6	97.4
Gas Wells	60.5	30.4	30.4	31.8	41.2	23.0	20.8
Total Development Wells	186.8	108.4	108.4	129.0	108.8	127.6	128.3
Net In-Progress Wells at Year End	54.5	31.6	63.7	69.3	38.7	49.1	39.1
Net Producing Wells							
Oil Wells	1,294.4	1,218.8	1,431.3	1,478.2	1,225.7	1,325.3	1,376.1
Gas Wells	805.3	626.6	737.7	717.2	788.7	639.1	616.0
Total Producing Wells	2,099.7	1,845.4	2,169.0	2,195.4	2,014.4	1,964.4	1,992.1
Africa and Middle East							
Net Wells Completed During Year							
Exploratory Wells							
Dry Holes	33.1	14.9	37.2	21.9	26.8	25.2	23.7
Oil Wells	W	9.9	W	W	W	29.1	27.6
Gas Wells	W	10.0	W	W	W	5.6	3.3
Total Exploratory Wells	65.0	34.8	50.7	50.9	67.5	59.9	54.6
Development Wells							
Dry Holes	W	5.8	W	W	11.3	13.2	W
Oil Wells	218.4	206.3	239.3	159.8	209.4	293.7	307.6
Gas Wells	W	8.6	W	W	13.5	8.7	W
Total Development Wells	225.6	220.7	252.0	186.9	234.2	315.6	335.4
Net In-Progress Wells at Year End	18.0	36.8	35.2	35.4	57.0	64.6	64.0
Net Producing Wells							
Oil Wells	1,924.2	1,969.8	1,954.1	2,063.8	2,209.2	2,357.1	2,780.1
Gas Wells	62.7	83.2	79.0	121.2	140.2	152.0	140.6
Total Producing Wells	1,986.9	2,053.0	2,033.1	2,185.0	2,349.4	2,509.1	2,920.7

See footnotes at end of table.

Table B21. Foreign Net Wells Completed, In-Progress Wells, and Producing Wells by Region for FRS Companies, 1998-2004 (Continued)

	1998	1999	2000	2001	2002	2003	2004
Other Eastern Hemisphere							
Net Wells Completed During Year							
Exploratory Wells							
Dry Holes	47.1	35.4	40.7	39.1	36.8	37.2	26.9
Oil Wells	36.6	41.6	31.3	19.9	11.0	8.9	14.9
Gas Wells	13.8	16.0	20.7	42.3	26.6	13.4	21.9
Total Exploratory Wells	97.5	93.0	92.7	101.3	74.4	59.5	63.7
Development Wells							
Dry Holes	11.5	1.9	4.4	7.1	3.0	2.5	W
Oil Wells	149.5	82.4	140.6	595.3	554.8	649.6	341.5
Gas Wells	101.2	104.5	113.5	117.0	201.7	147.9	W
Total Development Wells	262.2	188.8	258.5	719.4	759.5	800.0	448.5
Net In-Progress Wells at Year End	64.5	56.2	80.5	67.1	30.9	50.5	41.9
Net Producing Wells							
Oil Wells	1,707.2	1,654.2	1,950.2	7,852.9	7,458.6	7,794.1	7,900.2
Gas Wells	862.2	882.2	927.4	1,090.3	1,288.8	1,275.4	1,146.4
Total Producing Wells	2,569.4	2,536.4	2,877.6	8,943.2	8,747.4	9,069.5	9,046.6
Other Western Hemisphere							
Net Wells Completed During Year							
Exploratory Wells							
Dry Holes	14.6	7.9	14.5	31.9	13.2	10.7	11.2
Oil Wells	10.4	3.2	W	W	W	3.8	W
Gas Wells	4.5	3.8	W	W	W	0.0	W
Total Exploratory Wells	29.5	14.9	23.4	40.0	21.3	14.5	16.3
Development Wells							
Dry Holes	W	W	W	W	W	W	W
Oil Wells	212.8	81.4	205.8	240.5	217.0	218.0	216.9
Gas Wells	W	W	W	W	W	W	W
Total Development Wells	224.5	91.7	245.0	262.9	245.1	236.2	237.9
Net In-Progress Wells at Year End	28.9	27.2	31.3	47.4	31.6	8.6	19.5
Net Producing Wells							
Oil Wells	2,045.6	2,426.5	2,597.2	2,580.2	2,439.6	2,721.4	2,880.2
Gas Wells	190.9	161.4	253.1	262.7	274.0	288.5	311.0
Total Producing Wells	2,236.5	2,587.9	2,850.3	2,842.9	2,713.6	3,009.9	3,191.2
Total Foreign							
Net Wells Completed During Year							
Exploratory Wells							
Dry Holes	185.9	110.0	234.4	214.9	244.6	232.2	184.9
Oil Wells	97.6	89.7	74.1	136.0	134.3	98.9	98.8
Gas Wells	99.7	161.3	229.4	226.8	363.9	477.1	293.9
Total Exploratory Wells	383.2	361.0	537.9	577.7	742.8	808.2	577.5
Development Wells							
Dry Holes	83.7	70.1	156.7	252.5	171.2	184.3	183.8
Oil Wells	898.1	797.6	1,026.7	1,905.5	1,838.3	1,846.3	1,510.4
Gas Wells	597.4	911.0	1,083.5	2,212.2	2,664.5	2,848.5	3,820.7
Total Development Wells	1,579.2	1,778.7	2,266.9	4,370.3	4,674.0	4,879.1	5,514.9
Net In-Progress Wells at Year End	190.2	228.1	327.5	526.4	348.2	448.6	438.8
Net Producing Wells							
Oil Wells	17,503.7	17,425.2	20,027.6	31,615.6	27,536.1	27,365.5	27,223.6
Gas Wells	10,793.8	11,792.1	17,239.9	27,421.9	28,926.6	30,773.4	34,120.2
Total Producing Wells	28,297.5	29,217.3	37,267.5	59,037.4	56,462.7	58,138.9	61,343.8

¹OECD Europe combined with the former Soviet Union and Eastern Europe to avoid disclosure.

W = data withheld to avoid disclosure.

Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

Table B22. U.S. Net Wells Completed, and Average Depth, Onshore and Offshore, for FRS Companies, 2003 and 2004

	Total United States			U.S. Onshore			U.S. Offshore		
	2003	2004	Percent Change	2003	2004	Percent Change	2003	2004	Percent Change
Exploration Wells									
Oil Wells									
Wells Completed	38.4	37.4	-2.6	18.9	26.7	41.3	19.5	10.7	-45.1
Average Depth (thousand feet)	11.5	11.9	3.7	8.0	10.2	27.2	14.8	16.1	8.5
Gas Wells									
Wells Completed	199.2	254.7	27.9	163.5	225.7	38.0	35.7	29.0	-18.8
Average Depth (thousand feet)	10.8	10.2	-5.4	10.1	9.8	-3.1	14.1	13.7	-2.9
Dry Holes									
Wells Completed	135.0	124.7	-7.7	92.5	86.0	-7.1	42.5	38.7	-8.9
Average Depth (thousand feet)	10.7	11.7	8.5	8.9	9.5	7.3	14.8	16.4	10.7
Development Wells									
Oil Wells									
Wells Completed	1,662.0	2,093.0	25.9	1,566.8	2,008.9	28.2	95.2	84.1	-11.7
Average Depth (thousand feet)	6.0	5.3	-10.6	5.6	5.2	-7.4	12.8	9.9	-22.7
Gas Wells									
Wells Completed	5,613.6	6,313.5	12.5	5,538.8	6,246.1	12.8	74.8	67.4	-9.9
Average Depth (thousand feet)	7.4	7.2	-1.7	7.3	7.2	-1.5	12.1	11.5	-5.3
Dry Holes									
Wells Completed	237.9	207.2	-12.9	224.9	193.2	-14.1	13.0	14.0	7.7
Average Depth (thousand feet)	7.0	7.9	12.5	6.7	7.6	14.0	12.7	11.6	-8.3

Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

Table B23. Oil and Gas Reserves for FRS Companies and U.S. Industry, 2004

	Beginning Reserves	Plus Reserve Additions ¹	Plus Net Purchases	Less Production	Equals Ending Reserves	Replacement Rate (percent)
Crude Oil and Natural Gas Liquids						
(million barrels)						
U.S. Onshore						
Total Industry	23,202.0	2,340.0	0.0	1,957.0	23,585.0	119.6
FRS Companies	11,098.7	800.3	-67.1	780.3	11,051.5	102.6
All Other	12,103.3	1,539.7	67.1	1,176.7	12,533.5	130.9
U.S. Offshore						
Total Industry	6,148.0	255.0	0.0	689.0	5,714.0	37.0
FRS Companies	4,277.1	-29.7	-28.4	427.4	3,791.5	-7.0
All Other	1,870.9	284.7	28.4	261.6	1,922.5	108.9
U.S. Total						
Total Industry	29,350.0	2,595.0	0.0	2,646.0	29,299.0	98.1
FRS Companies	15,375.8	770.6	-95.6	1,207.8	14,843.0	63.8
All Other	13,974.2	1,824.4	95.6	1,438.2	14,456.0	126.9
FRS Companies' Foreign Oil Reserves						
Canada	2,259.4	-663.7	-65.1	203.3	1,327.2	-326.4
Europe	3,640.1	331.4	-13.1	520.1	3,438.3	63.7
FSU and Eastern Europe	1,973.9	-60.5	0.0	38.6	1,874.9	-156.6
Africa	6,127.6	7.4	-4.1	468.3	5,662.7	1.6
Middle East	795.7	-24.2	0.0	102.2	669.2	-23.7
Other Eastern Hemisphere	2,545.6	17.7	-23.4	298.8	2,241.1	5.9
Other Western Hemisphere	1,268.8	-23.9	28.9	111.9	1,161.9	-21.4
Total Foreign	18,611.2	-415.8	-76.9	1,743.2	16,375.3	-23.9
Worldwide Total for FRS Companies	33,987.0	354.8	-172.5	2,951.0	31,218.3	12.0
Dry Natural Gas						
(billion cubic feet)						
U.S. Onshore						
Total Industry	165,429.0	22,100.0	0.0	15,076.0	172,453.0	146.6
FRS Companies	72,217.1	9,642.3	2,308.2	5,984.7	78,182.9	161.1
All Other	93,211.9	12,457.7	-2,308.2	9,091.3	94,270.1	137.0
U.S. Offshore						
Total Industry	23,615.0	537.0	0.0	4,092.0	20,060.0	13.1
FRS Companies	15,223.5	618.7	-489.3	2,189.3	13,163.5	28.3
All Other	8,391.5	-81.7	489.3	1,902.7	6,896.5	-4.3
U.S. Total						
Total Industry	189,044.0	22,637.0	0.0	19,168.0	192,513.0	118.1
FRS Companies	87,440.6	10,261.0	1,818.9	8,174.0	91,346.4	125.5
All Other	101,603.4	12,376.1	-1,818.9	10,994.0	101,166.6	112.6
FRS Companies' Foreign Gas Reserves						
Canada	14,390.0	1,442.7	-631.5	1,691.5	13,509.7	85.3
Europe	19,574.9	719.9	-47.8	2,157.5	18,089.5	33.4
FSU and Eastern Europe	1,957.3	223.4	W	W	2,134.4	483.0
Africa	8,478.9	2,182.4	W	276.1	10,291.2	790.5
Middle East	2,035.1	88.7	W	W	2,003.6	73.8
Other Eastern Hemisphere	25,904.6	4,261.6	-540.1	1,711.7	27,914.3	249.0
Other Western Hemisphere	19,247.4	-112.0	-2.0	1,008.9	18,124.5	-11.1
Total Foreign	91,588.2	8,806.6	-1,315.5	7,012.1	92,067.1	125.6
Worldwide Total for FRS Companies	179,028.8	19,067.5	503.4	15,186.2	183,413.6	125.6

¹ Includes revisions of previous estimates, improved recovery, and extensions and discoveries.

Sources: Industry data - Energy Information Administration Form EIA-23 (Annual Survey of Domestic Oil and Gas Reserves); see *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves Annual Report*, 2003 and 2004 (November 2004 and November 2005). FRS companies' data - Energy Information Administration, Form EIA-28 (Financial Reporting System).

Table B24. Oil and Gas Reserve Balances by Region for FRS Companies, 2004

Reserves Statistics	Worldwide Total	United States			Total Foreign
		Total	Onshore	Offshore	
Crude Oil and Natural Gas Liquids					
	(million barrels)				
Beginning of Period	33,987	15,376	11,099	4,277	18,611
Revisions of Previous Estimates	-1,453	129	328	-199	-1,582
Improved Recovery	343	226	205	21	117
Purchases of Minerals-in-Place	347	302	242	60	45
Extensions & Discoveries	1,465	416	268	148	1,049
Production	-2,951	-1,208	-780	-427	-1,743
Sales of Minerals-in-Place	-520	-398	-309	-89	-122
End of period	31,218	14,843	11,051	3,792	16,375
Proportionate Interest in Investee Reserves	--	--	--	--	7,222
Natural Gas Reserves					
	(billion cubic feet)				
Beginning of Period	179,029	87,441	72,217	15,224	91,588
Revisions of Previous Estimates	2,373	1,893	2,291	-399	480
Improved Recovery	1,267	1,056	1,041	15	211
Purchases of Minerals-in-Place	3,527	3,426	3,188	238	101
Extensions & Discoveries	15,428	7,313	6,310	1,003	8,115
Production	-15,186	-8,174	-5,985	-2,189	-7,012
Sales of Minerals-in-Place	-3,024	-1,607	-880	-727	-1,416
End of Period	183,414	91,346	78,183	13,164	92,067
Proportionate Interest in Investee Reserves	--	--	--	--	36,972

See footnotes at end of table.

Table B24. Oil and Gas Reserve Balances by Region for FRS Companies, 2004 (Continued)

Reserves Statistics	Foreign					
	Total	Canada	Europe and Former Soviet Union 1	Africa and Middle East	Other Eastern Hemisphere	Other Western Hemisphere
Crude Oil and Natural Gas Liquids	(million barrels)					
Beginning of Period	18,611	2,259	5,614	6,923	2,546	1,269
Revisions of Previous Estimates	-1,582	-766	-260	-423	-46	-86
Improved Recovery	117	W	6	55	19	W
Purchases of Minerals-in-Place	45	W	0	W	0	W
Extensions & Discoveries	1,049	103	525	352	44	25
Production	-1,743	-203	-559	-570	-299	-112
Sales of Minerals-in-Place	-122	-67	-13	W	-24	W
End of period	16,375	1,327	5,313	6,332	2,241	1,162
Proportionate Interest in Investee Reserves	7,222	0	4,065	W	W	1,971
Natural Gas Reserves	(billion cubic feet)					
Beginning of Period	91,588	14,390	21,532	10,514	25,905	19,247
Revisions of Previous Estimates	480	-519	142	1,434	638	-1,215
Improved Recovery	211	3	40	74	W	W
Purchases of Minerals-in-Place	101	50	0	W	W	W
Extensions & Discoveries	8,115	1,959	761	763	3,601	1,032
Production	-7,012	-1,691	-2,204	-396	-1,712	-1,009
Sales of Minerals-in-Place	-1,416	-682	-48	W	-544	W
End of Period	92,067	13,510	20,224	12,295	27,914	18,124
Proportionate Interest in Investee Reserves	36,972	0	20,633	W	W	2,709

¹ OECD Europe combined with the former Soviet Union and Eastern Europe to avoid disclosure. Prior to 1993, only OECD Europe is included in this region.

-- = Not applicable.

W = Data withheld to avoid disclosure.

Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

Table B25. Oil and Gas Exploration and Development Expenditures, Reserves, and Production by Region for FRS Companies and Total Industry, 2004 and Percent Change from 2003

	United States			Foreign Total
	Total	Onshore	Offshore	
Exploration and Development Expenditures (million dollars)				
FRS Companies	32,390.0	21,860.0	10,530.0	25,336.0
Percent Change	19.1	48.3	-15.4	-10.2
Wells Completed				
FRS Companies	9,030.4	8,786.5	243.9	6,092.4
Percent Change	14.5	15.5	-13.1	7.1
Industry	-	-	-	-
Percent Change	-	-	-	-
Success Rate¹				
FRS Companies	96.3	96.8	78.4	93.9
Industry	-	-	-	91.5
Crude Oil and NGL Production² (million barrels)				
FRS Companies	1,207.8	780.3	427.4	1,785.7
Percent Change	-5.5	-4.7	-6.8	1.8
Industry	2,646.0	1,957.0	689.0	26,724.9
Percent Change	-1.2	4.5	-14.6	5.6
Crude Oil and NGL Reserve Interests³ (million barrels)				
FRS Companies	14,843.0	11,051.5	3,791.5	24,065.8
Percent Change	-3.2	-0.3	-10.6	-5.4
Natural Gas Production (billion cubic feet)				
FRS Companies	8,174.0	5,984.7	2,189.3	7,012.1
Percent Change	-2.0	1.9	-11.4	-0.5
Industry	19,168.0	15,076.0	4,092.0	75,849.2
Percent Change	-1.3	1.4	-10.1	3.9
Natural Gas Reserve Interests (billion cubic feet)				
FRS Companies	91,346.4	78,182.9	13,163.5	129,039.1
Percent Change	7.0	10.9	-11.4	6.7

See footnotes at end of table.

Table B25. Oil and Gas Exploration and Development Expenditures, Reserves, and Production by Region for FRS Companies and Total Industry, 2004 and Percent Change from 2003 (Continued)

	Foreign						
	Total	Canada	Europe & Former Soviet Union ⁴	Africa	Middle East	Other Eastern Hemisphere	Other Western Hemisphere
Exploration and Development Expenditures (million dollars)							
FRS Companies	25,336.0	5,318.0	6,450.0	6,901.0	1,271.0	3,761.0	1,635.0
Percent Change	-10.2	8.5	-17.8	-24.9	30.2	-9.6	44.6
Wells Completed							
FRS Companies	6,092.4	4,781.3	154.7	276.0	114.0	512.2	254.2
Percent Change	7.1	18.0	3.2	6.1	-1.2	-40.4	1.4
Industry	29,676.0	21,340.0	651.0	979.0	806.0	2,163.0	3,737.0
Percent Change	-4.5	8.1	-86.0	3.8	-5.1	15.8	23.5
Success Rate¹ (percent)							
FRS Companies	93.9	94.4	82.5	89.5	97.1	94.0	95.1
Industry	91.5	92.1	87.6	90.1	97.4	84.3	92.4
Crude Oil and NGL Production² (million barrels)							
FRS Companies	1,785.7	203.3	558.7	468.3	144.7	298.8	111.9
Percent Change	1.8	-6.7	-1.5	14.4	-5.1	1.0	0.8
Industry	26,724.9	1,129.1	6,435.4	3,390.7	8,993.0	2,901.6	3,875.2
Percent Change	5.6	3.6	4.2	10.6	9.0	1.0	0.8
Crude Oil and NGL Reserve Interests³ (million barrels)							
FRS Companies	24,065.8	1,327.2	9,378.3	5,662.7	2,309.1	2,256.0	3,132.6
Percent Change	-5.4	-42.2	4.7	-7.6	8.6	-12.1	-6.6
Natural Gas Production (billion cubic feet)							
FRS Companies	7,012.1	1,691.5	2,203.8	276.1	120.2	1,711.7	1,008.9
Percent Change	-0.5	-3.0	-3.6	25.4	26.0	-5.4	12.9
Industry	75,849.2	6,452.8	37,118.0	5,122.0	9,880.5	11,409.0	5,866.9
Percent Change	3.9	1.3	2.7	2.6	8.6	4.1	7.2
Natural Gas Reserve Interests (billion cubic feet)							
FRS Companies	129,039.1	13,509.7	40,856.4	10,291.2	15,458.5	28,089.9	20,833.4
Percent Change	6.7	-6.3	-0.8	21.4	73.0	7.6	-4.5

¹Success Rate defined as the total number of successful well completions during the period divided by the total number of wells drilled.

²Crude oil plus natural gas liquids. Foreign includes ownership interest production and foreign access production.

³Foreign includes net ownership interest reserves (68.0 percent of total foreign) and "Other Access" reserves (32.0 percent of total foreign). "Other Access" reserves include proportional interest in investee reserves and foreign access reserves.

⁴OECD Europe combined with the former Soviet Union and Eastern Europe to avoid disclosure.

- = Not available.

Sources: Reserve additions, U.S. - Energy Information Administration Form EIA-23 (Annual Survey of Domestic Oil and Gas Reserves); see *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves*, 2003, and 2004 Annual Reports. Reserve Additions, Foreign - *British Petroleum Statistical Review of World Energy 2004 and 2005*. Wells Completed, Foreign - *World Oil*, September 2004 and September 2005.

FRS companies' data - Energy Information Administration, Form EIA-28 (Financial Reporting System).

Table B26. U.S. and Foreign Refining/Marketing Sources and Dispositions of Crude Oil and Natural Gas Liquids for FRS Companies, 1998-2004
(million barrels)

	1998	1999	2000	2001	2002	2003	2004
U.S. Refining/Marketing							
Sources							
Acquisitions from U.S. Production Segment	1,484	1,516	1,238	1,358	1,368	1,195	976
Purchases from Other U.S. Segments and Unconsolidated Affiliates	1,935	2,181	2,149	2,629	1,709	1,130	635
Purchases from Third Parties	4,968	5,205	5,340	3,679	4,219	4,980	5,498
Net Transfers from Foreign Refining/Marketing Segment	635	475	324	716	631	738	918
Total Sources	9,021	9,377	9,050	8,383	7,926	8,043	8,028
Dispositions							
Net Change in Inventories	31	-1	-4	-1	-28	30	19
Input to Refineries	4,883	4,872	4,690	4,668	4,715	4,791	4,930
Sales to:							
Unaffiliated Third Parties	3,730	4,147	4,281	3,391	3,056	2,851	2,964
Other Segments Excluding Foreign Refining/Marketing	377	359	84	325	183	372	115
Total Dispositions	9,021	9,377	9,050	8,383	7,926	8,043	8,028
Foreign Refining/Marketing							
Sources							
Acquisitions from Foreign Production Segment	1,380	1,462	1,585	1,661	1,590	1,502	1,635
Purchases							
Other Foreign Segments	W	W	W	W	W	W	129
Unconsolidated Affiliates	W	W	W	W	W	W	0
Unaffiliated Third Parties							
Foreign Access	209	W	W	W	W	W	W
Foreign Governments (Open Market)	679	W	W	W	W	W	W
Other Unaffiliated Third Parties	2,000	2,244	2,165	2,459	1,626	1,816	1,953
Net Transfers to U.S. Refining/Marketing Segment	-635	-475	-324	-716	-631	-738	-918
Total Sources	4,021	4,307	4,067	4,200	3,287	3,328	3,624
Dispositions							
Net Change in Inventories	155	-19	10	-2	0	17	-4
Input to Refineries	1,419	1,641	1,673	1,682	1,639	1,646	1,768
Sales	2,446	2,685	2,384	2,520	1,647	1,666	1,860
Total Dispositions	4,021	4,307	4,067	4,200	3,287	3,328	3,624

W = Data withheld to avoid disclosure.

Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

Table B27. U.S. Purchases and Sales of Oil, Natural Gas, Other Raw Materials, and Refined Products for FRS Companies, 1998-2004

	1998	1999	2000	2001	2002	2003	2004
Purchases							
Values (million dollars)							
U.S. Refining/Marketing Segment							
Raw Materials							
Crude Oil and NGL	106,128	152,880	253,092	192,228	186,084	224,749	302,848
Natural Gas	15,177	20,387	58,679	38,947	33,744	2,289	1,253
Other Raw Materials	5,348	5,705	8,395	7,852	7,950	11,436	19,301
Total Raw Materials	126,653	178,972	320,166	239,027	227,778	238,474	323,402
Refined Products							
Motor Gasoline	24,249	36,095	65,488	64,609	60,791	68,149	92,075
Distillate Fuels	10,574	17,433	35,116	31,323	27,238	27,702	33,557
Other Refined Products	8,786	9,963	17,036	18,895	15,460	18,176	22,430
Total Refined Products	43,609	63,491	117,640	114,827	103,489	114,027	148,062
U.S. Production Segment							
Crude Oil and NGL	4,694	5,695	4,794	1,979	721	2,133	1,425
Natural Gas	8,922	8,608	12,208	14,113	11,785	1,896	1,309
Total Raw Materials	13,616	14,303	17,002	16,092	12,506	4,029	2,734
Sales							
U.S. Refining/Marketing Segment							
Raw Materials							
Crude Oil and NGL	50,702	72,955	121,118	86,675	75,241	91,722	118,596
Natural Gas	15,270	20,023	56,482	37,648	32,882	W	0
Other Raw Materials	2,172	1,576	2,403	2,203	944	W	5,867
Total Raw Materials	68,144	94,554	180,003	126,526	109,067	95,704	124,463
Refined Products							
Motor Gasoline	84,968	109,301	176,394	167,735	160,010	183,020	240,545
Distillate Fuels	39,513	51,810	91,998	83,702	75,136	86,115	114,728
Other Refined Products	23,283	28,506	42,269	40,172	37,044	46,749	55,135
Total Refined Products	147,764	189,617	310,661	291,609	272,190	315,884	410,408
U.S. Production Segment							
Crude Oil and NGL	19,688	25,186	38,314	31,613	30,930	35,019	43,539
Natural Gas	23,649	23,178	40,719	47,390	40,208	39,447	43,161
Total Raw Materials	43,337	48,364	79,033	79,003	71,138	74,466	86,700
Purchases							
Volumes							
U.S. Refining/Marketing Segment							
Raw Materials							
Crude Oil and NGL (million barrels)	9,021	9,377	9,050	8,383	7,926	8,043	8,028
Natural Gas (billion cubic feet)	7,425	9,285	13,323	9,147	10,458	441	223
Refined Products (million barrels)							
Motor Gasoline	1,272	1,533	1,708	1,892	1,886	1,811	1,797
Distillate Fuels	625	837	943	987	952	780	689
Other Refined Products	464	446	535	625	583	542	572
Total Refined Products	2,361	2,815	3,186	3,504	3,420	3,133	3,058
U.S. Production Segment							
Crude Oil and NGL (million barrels)	394	367	200	88	37	78	44
Natural Gas (billion cubic feet)	4,295	3,835	3,276	3,461	3,956	365	237
Sales							
U.S. Refining/Marketing Segment							
Raw Materials							
Crude Oil and NGL (million barrels)	4,107	4,506	4,365	3,716	3,239	3,222	3,079
Natural Gas (billion cubic feet)	6,764	8,834	13,001	8,460	9,783	W	0
Refined Products (million barrels)							
Motor Gasoline	3,789	4,070	4,286	4,539	4,598	4,354	4,403
Distillate Fuels	2,146	2,344	2,444	2,540	2,465	2,288	2,321
Other Refined Products	1,342	1,407	1,405	1,528	1,332	1,422	1,506
Total Refined Products	7,277	7,820	8,135	8,606	8,395	8,064	8,231
U.S. Production Segment							
Crude Oil and NGL (million barrels)	1,805	1,667	1,484	1,498	1,433	1,336	1,237
Natural Gas (billion cubic feet)	11,765	10,952	11,348	11,957	13,109	8,466	7,959

Note: Beginning in 2003, purchases of natural gas by the Petroleum line of business are for own use only, and sales of natural gas are to the downstream natural gas line of business.

Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

Table B28. U.S. and Foreign Petroleum Refining Statistics for FRS Companies, 1998-2004

	1998	1999	2000	2001	2002	2003	2004
U.S. Refining							
Runs to Stills	(thousand barrels per calendar day)						
At Own Refineries	13,699	13,476	13,361	13,875	13,307	13,278	13,563
By Refineries of Others	0	82	86	105	80	84	87
Total Runs to Stills	13,699	13,558	13,447	13,980	13,387	13,362	13,650
Refinery Output at Own Refineries and Refineries of Others							
Reformulated Motor Gasoline	1,552	1,792	2,129	2,061	1,991	1,726	1,519
Oxygenated Motor Gasoline	1,018	609	412	588	552	515	574
Other Motor Gasoline	4,665	4,588	4,207	4,373	4,456	4,695	4,997
Total Motor Gasoline	7,235	6,989	6,748	7,022	6,999	6,936	7,090
Distillate Fuels	4,278	4,167	4,376	4,331	4,167	4,398	4,595
Other Refined Products	3,416	3,483	3,375	3,669	3,595	3,349	3,491
Total Refinery Output	14,929	14,639	14,499	15,022	14,761	14,683	15,176
Refinery Capacity at End of Year	14,277	14,158	14,424	14,682	14,630	14,709	14,839
(number of refineries)							
Number of Wholly-Owned Refineries	95	94	90	99	84	79	79
Foreign Refining							
Runs to Stills	(thousand barrels per calendar day)						
At Own Refineries	4,043	4,407	4,513	4,620	4,778	4,550	4,886
By Refineries of Others	292	397	403	339	325	370	375
Total Runs to Stills	4,335	4,804	4,916	4,959	5,103	4,920	5,261
Refinery Output at Own Refineries							
Motor Gasoline	1,135	1,247	1,295	1,293	1,427	1,400	1,445
Distillate Fuels	1,787	1,901	1,738	1,744	2,041	1,971	2,054
Other Refined Products	1,213	1,315	1,717	1,729	1,405	1,251	1,406
Total Refinery Output at Own Refineries	4,135	4,463	4,750	4,766	4,873	4,622	4,905
Refinery Output at Refineries of Others							
Motor Gasoline	83	122	123	120	117	125	129
Distillate Fuels	121	135	171	155	175	180	181
Other Refined Products	87	146	80	84	70	73	83
Total Refinery Output at Refineries of Others	291	403	374	359	362	378	393
Total Refinery Output	4,426	4,866	5,124	5,125	5,235	5,000	5,298
Refinery Capacity at End of Year	4,508	4,930	5,134	5,572	5,642	5,374	5,698
(number of refineries)							
Number of Wholly-Owned Refineries	20	19	18	23	22	19	19
Number of Partially-Owned Refineries	15	18	18	18	19	19	19

Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

Table B29. U.S. and Foreign Refinery Output and Capacity for FRS Companies, Ranked by Total Energy Assets, and Industry, 2004
(Thousand Barrels per Day)

Refined Product Statistics ¹	FRS Companies				Total Industry	FRS Percent of Industry
	All FRS	Top Four	Five through Twelve ²	All Other ²		
United States						
Refinery Output Volume ³	15,176	7,022	1,936	6,218	18,584	81.7
Percent Gasoline						
Reformulated/Oxygenated	13.8	8.9	15.7	18.7	17.2	65.6
Other	32.9	36.7	35.1	28.0	29.9	90.1
Percent Distillate	29.6	30.3	26.3	29.8	30.2	80.0
Percent Other	23.7	24.1	22.9	23.4	22.8	84.9
Refinery Capacity						
Years Change (Net)	130	-16	13	133	229	(5)
At Year End	14,839	6,539	2,170	6,130	17,729	83.7
Utilization Rate ⁴	92.2	93.3	77.7	96.2	91.0	(5)
Foreign						
Refinery Output Volume ³	5,298	4,917	0	381	-	(5)
Percent Gasoline	29.7	29.9	0.0	27.0	-	(5)
Percent Distillate	42.2	42.4	0.0	39.1	-	(5)
Percent Other	28.1	27.7	0.0	33.9	-	(5)
Refinery Capacity						
Years Change (Net)	324	39	0	285	-	(5)
At Year End	5,698	5,198	0	500	-	-
Utilization Rate ³	88.3	86.9	0.0	108.0	-	(5)

¹U.S. FRS and U.S. industry data include operations in Puerto Rico and the U.S. Virgin Islands. Foreign FRS and foreign industry data exclude operations in Puerto Rico and the U.S. Virgin Islands.

²For foreign FRS, the "Five through Twelve" and "All Other" groups are combined to avoid disclosure.

³For FRS companies, includes refinery output at own refineries for own account and at others' refineries for own account.

⁴Defined as average daily crude runs at own refineries, for own account, and for account of others, divided by average daily crude distillation capacity.

⁵Not meaningful.

- = Not available.

Note: Sum of components may not equal total due to independent rounding.

Sources: Industry data, U.S. - Refinery output and refinery capacity: Energy Information Administration, Forms EIA-820 (Annual Refinery Report) and EIA-810 (Monthly Refinery Report); see *Petroleum Supply Annual*, 2003 and 2004. Industry data, Foreign - Refinery Capacity: *British Petroleum Statistical Review of World Energy*, 2004 and 2005.

FRS companies data - Energy Information Administration, Form EIA-28 (Financial Reporting System).

Table B30. U.S. Refining/Marketing Dispositions of Refined Products by Channel of Distribution for FRS Companies, 1998-2004

U.S. Dispositions	1998	1999	2000	2001	2002	2003	2004
Motor Gasoline	Values (million dollars)						
Intersegment Sales	966	1,521	1,802	2,521	3,500	1,700	3,982
U.S. Third-Party Sales							
Wholesale-Resellers	38,659	51,908	83,203	69,799	68,576	99,798	119,950
Company Operated Automotive Outlets	15,497	17,334	24,870	22,843	18,662	21,861	33,978
Company Lessee and Open Automotive Outlets	23,966	29,434	48,693	45,798	41,774	35,767	50,258
Other (Industrial, Commercial and Other Retail)	5,880	9,104	17,826	26,774	27,498	23,894	32,377
Total Third-Party Sales	84,002	107,780	174,592	165,214	156,510	181,320	236,563
Total Motor Gasoline Sales	84,968	109,301	176,394	167,735	160,010	183,020	240,545
Distillate Fuels							
Intersegment Sales	682	708	444	535	2,387	1,057	2,105
Third-Party Sales	38,831	51,102	91,554	83,167	72,749	85,058	112,623
Total Distillate Fuels Sales	39,513	51,810	91,998	83,702	75,136	86,115	114,728
Other Refined Products							
Intersegment Sales	2,059	2,779	6,078	7,386	4,474	4,235	6,557
Third-Party Sales	21,224	25,727	36,191	32,786	32,570	42,514	48,578
Total Other Refined Products Sales	23,283	28,506	42,269	40,172	37,044	46,749	55,135
Total U.S. Refined Products							
Intersegment Sales	3,707	5,008	8,324	10,442	10,361	6,992	12,644
Third-Party Sales	144,057	184,609	302,337	281,167	261,829	308,892	397,764
Total U.S. Refined Products Sales	147,764	189,617	310,661	291,609	272,190	315,884	410,408
Motor Gasoline	Volumes (million barrels)						
Intersegment Sales	50	66	47	79	101	45	78
U.S. Third-Party Sales							
Wholesale-Resellers	1,901	2,059	2,126	1,956	2,045	2,508	2,308
Company Operated Automotive Outlets	558	540	543	545	464	432	508
Company Lessee and Open Automotive Outlets	965	1,006	1,105	1,182	1,167	797	881
Other (Industrial, Commercial and Other Retail)	316	399	465	777	820	572	627
Total Third-Party Sales	3,739	4,004	4,239	4,460	4,496	4,309	4,325
Total Motor Gasoline Sales	3,789	4,070	4,286	4,539	4,598	4,354	4,403
Distillate Fuels							
Intersegment Sales	38	33	13	17	85	30	44
Third-Party Sales	2,109	2,310	2,430	2,522	2,380	2,258	2,277
Total Distillate Fuels Sales	2,146	2,344	2,444	2,540	2,465	2,288	2,321
Other Refined Products							
Intersegment Sales	141	153	213	258	162	125	147
Third-Party Sales	1,201	1,254	1,191	1,269	1,170	1,298	1,359
Total Other Refined Products Sales	1,342	1,407	1,405	1,528	1,332	1,422	1,506
Total U.S. Refined Products							
Intersegment Sales	229	252	274	354	348	200	270
Third-Party Sales	7,048	7,568	7,861	8,252	8,046	7,864	7,961
Total U.S. Refined Products Sales	7,277	7,820	8,135	8,606	8,395	8,064	8,231
Number of Active Automotive Outlets at Year End	Number of Automotive Outlets						
Company Operated	13,645	12,018	12,583	11,380	9,745	8,804	8,782
Lessee Dealers	16,396	17,847	16,953	11,474	9,347	8,746	7,871
Open Dealers	28,859	26,805	25,707	31,231	28,056	26,657	26,945
Total Outlets	58,900	56,670	55,243	54,085	47,148	44,207	43,598

Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

**Table B31. Sales of U.S. Refined Products, by Volume and Price, for FRS Companies
Ranked by Total Energy Assets, 2003-2004**
(Million Barrels and Dollars per Barrel)

Product Distribution Channel	All FRS		Top Four		Five through Twelve		All Other	
	Volume	Price	Volume	Price	Volume	Price	Volume	Price
Gasoline								
Intra-Company Sales								
2004	78.5	50.75	36.0	49.92	42.5	51.45	W	W
2003	44.9	37.85	44.5	37.59	W	W	W	W
Percent Change	74.7	34.1	-19.1	32.8	W	W	W	W
Wholesale/Resellers								
2004	2,308.2	51.97	1,023.7	53.18	215.2	53.50	1,069.3	50.49
2003	2,507.7	39.80	1,178.7	42.37	220.9	41.09	1,108.1	36.80
Percent Change	-8.0	30.6	-13.2	25.5	-2.6	30.2	-3.5	37.2
Dealer-Operated Outlets								
2004	881.0	57.04	407.3	59.40	(2)	(2)	473.8	55.02
2003	797.1	44.87	322.1	47.38	(2)	(2)	475.0	43.17
Percent Change	10.5	27.1	26.4	25.3	(2)	(2)	-0.3	27.5
Company-Operated Outlets								
2004	508.1	66.88	266.5	68.81	(2)	(2)	241.6	64.74
2003	431.7	50.64	176.7	50.47	(2)	(2)	254.9	50.76
Percent Change	17.7	32.1	50.8	36.3	(2)	(2)	-5.2	27.5
Other ¹								
2004	627.3	51.61	348.2	51.85	(2)	(2)	279.2	51.32
2003	572.2	41.76	325.7	44.16	(2)	(2)	246.5	38.58
Percent Change	9.6	23.6	6.9	17.4	(2)	(2)	13.2	33.0
Total Gasoline								
2004	4,403.1	54.63	2,081.6	56.12	602.0	54.59	1,719.6	52.84
2003	4,353.7	42.04	2,047.7	44.04	604.5	42.87	1,701.4	39.34
Percent Change	1.1	30.0	1.7	27.4	-0.4	27.3	1.1	34.3
Distillate								
2004	2,321.5	49.42	993.3	49.86	329.2	49.34	999.0	49.01
2003	2,287.7	37.64	1,074.9	39.24	299.9	36.30	912.9	36.21
Percent Change	1.5	31.3	-7.6	27.1	9.8	35.9	9.4	35.4
All Other Products								
2004	1,506.3	36.60	606.3	38.27	165.4	32.67	734.6	36.12
2003	1,422.4	32.87	626.9	32.00	177.8	39.64	617.7	31.79
Percent Change	5.9	11.4	-3.3	19.6	-7.0	-17.6	18.9	13.6
Total Refined Products								
2004	8,230.9	49.86	3,681.3	51.49	1,096.5	49.71	3,453.1	48.18
2003	8,063.7	39.17	3,749.5	40.65	1,082.2	40.52	3,232.0	37.01
Percent Change	2.1	27.3	-1.8	26.7	1.3	22.7	6.8	30.2

¹Includes direct sales to industrial and commercial customers and sales to unconsolidated affiliates.

²Five through Twelve and All Other groups combined for dealer-operated outlets, company-operated outlets, and other, to avoid disclosure.

W = Data withheld to avoid disclosure.

Note: Sum of components may not equal total due to independent rounding.

Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

Table B32. U.S. Refining/Marketing Revenues and Costs for FRS Companies, 1998-2004
(Million Dollars)

Revenues and Costs	1998	1999	2000	2001	2002	2003	2004
Refined Product Revenues	147,764	189,617	310,661	291,609	272,190	315,884	410,408
Refined Product Costs							
Raw Materials Processed ¹	60,094	83,348	135,624	109,565	115,277	140,138	192,333
Refinery Energy Expense	5,349	6,427	10,838	11,321	9,178	11,415	13,436
Other Refinery Expense	12,219	11,734	10,635	12,274	16,202	14,842	15,029
Product Purchases	43,609	63,491	117,640	114,827	103,489	114,027	146,579
Other Product Supply Expense	5,160	4,915	6,655	6,552	12,562	10,568	6,399
Marketing Expense ²	10,308	11,100	11,128	13,672	13,889	10,959	12,019
Total Refined Product Costs	136,739	181,015	292,520	268,211	270,597	301,949	385,795
Refined Product Margin	11,025	8,602	18,141	23,398	1,593	13,935	24,613
Refined Products Sold (million barrels)	7,276.9	7,820.2	8,134.7	8,606.3	8,394.7	8,063.7	8,230.9
Dollars per Barrel Margin ³	1.52	1.10	2.23	2.72	0.19	1.73	2.99
Other Refining/Marketing Revenues ⁴	15,997	14,282	14,196	16,918	15,878	10,674	14,188
Other Refining/Marketing Expenses							
Depreciation, Depletion, & Allowance	4,700	5,273	4,712	5,259	5,617	6,138	5,575
Other ⁵	15,547	12,546	16,865	18,683	12,811	8,256	13,130
Total Other Expenses	20,247	17,819	21,577	23,942	18,428	14,394	18,704
Refining/Marketing Operating Income	6,775	5,065	10,760	16,374	-957	10,215	20,097
Miscellaneous Revenue & Expense ⁶	1,315	1,367	1,265	1,866	1,002	1,384	2,052
Less Income Taxes	2,142	1,714	4,360	6,271	67	4,165	7,439
Refining/Marketing Net Income	5,932	4,883	7,659	11,951	-1,350	7,434	14,796

¹Represents reported cost of raw materials processed at refineries, less any profit from raw material trades or exchanges by refining/marketing.

²Excludes costs of nonfuel goods and services and tires, batteries, and accessories (TBA).

³Dollars per barrel of refined product sold.

⁴Includes revenues from transportation services supplied (non-federally regulated), TBA sales, and miscellaneous.

⁵Includes general and administrative expenses, research and development costs, costs of transportation services supplied to others, and expenses for TBA.

⁶Includes other revenue and expense items, extraordinary items, and cumulative effect of accounting changes.

Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

Table B33. U.S. Petroleum Refining/Marketing General Operating Expenses for FRS Companies, 1998-2004
(Million Dollars)

General Operating Expenses	1998	1999	2000	2001	2002	2003	2004
Raw Material Supply							
Raw Material Purchases	126,653	178,972	320,166	239,027	227,778	241,126	323,527
Other Raw Material Supply Expense	5,183	3,184	2,371	4,196	4,520	3,218	3,815
Total Raw Material Supply Expense	131,836	182,156	322,537	243,223	232,298	244,344	327,342
Less: Cost of Raw Materials Input To Refining	62,955	85,270	139,931	114,400	121,192	146,446	196,912
Net Raw Material Supply	68,881	96,886	182,606	128,823	111,106	97,898	130,430
Refining							
Raw Materials Input to Refining	62,955	85,270	139,931	114,400	121,192	146,446	196,912
Less: Raw Material Used as Refinery Fuel	3,598	4,254	6,910	7,132	7,954	8,502	10,605
Refinery Process Energy Expense	5,349	6,427	10,838	11,321	9,178	11,415	14,310
Other Refining Operating Expenses	12,984	12,928	13,675	14,657	17,459	16,143	16,525
Refined Product Purchases	43,609	63,491	117,640	114,827	103,489	114,027	148,333
Other Refined Product Supply Expenses	5,160	4,915	6,655	6,552	12,562	10,568	6,399
Total Refining	126,459	168,777	281,829	254,625	255,926	290,097	372,124
Marketing							
Cost of Other Products Sold	6,844	5,305	7,342	9,797	8,677	7,067	7,761
Other Marketing Expenses	10,308	11,100	11,128	13,672	13,889	10,959	11,677
Subtotal	17,152	16,405	18,470	23,469	22,566	18,026	19,438
Expense of Transport Services for Others	4,297	4,191	3,691	4,002	439	559	618
Total Marketing	21,449	20,596	22,161	27,471	23,005	18,585	20,056
Total U.S. Refining/Marketing Segment General Operating Expenses	216,789	286,259	486,596	410,919	390,037	406,580	522,610

Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

Table B34. U.S. Coal Reserves Balance for FRS Companies, 1998-2004
(Million Tons)

Reserves and Production Statistics	1998	1999	2000	2001	2002	2003	2004
Changes to U.S. Coal Reserves							
Beginning of Period	7,502	5,334	4,410	2,530	1,320	856	574
Changes due to:							
Leases/Purchases of Minerals-in-Place	32	W	W	W	W	W	W
Corporate Mergers and Acquisitions	5	W	W	W	W	W	W
Other Reserve Changes	-17	-25	-58	-354	27	-200	1,718
Production	-74	-44	-36	-33	-29	-18	-24
Dispositions of Minerals-in-Place	-2,113	-802	-1,799	W	W	W	W
End of Period Reserves	5,334	4,507	2,530	1,320	856	574	2,262
Weighted Average Annual Production Capacity							
	65	55	51	40	40	24	30
Reserves and Production:							
Total United States							
FRS Companies' Reserves	5,334	4,507	2,530	1,320	856	574	2,262
FRS Companies' Production	74	44	36	33	29	18	24
U.S. Industry Production	1,118	1,100	1,074	1,128	1,093	1,072	1,111
Region							
East							
FRS Companies' Reserves	1,774	1,676	1,034	557	227	W	W
FRS Companies' Production	24	21	20	16	14	W	W
U.S. Industry Production	460	426	420	433	399	376	394
Midwest							
FRS Companies' Reserves	1,372	1,055	1,051	394	W	W	W
FRS Companies' Production	12	W	W	W	W	W	W
U.S. Industry Production	110	104	87	95	93	89	90
West							
FRS Companies' Reserves	2,188	1,776	446	370	W	W	W
FRS Companies' Production	38	W	W	W	W	W	W
U.S. Industry Production	548	571	566	597	601	603	627
Mining Method							
Underground							
FRS Companies' Reserves	2,352	1,853	1,752	886	620	382	W
FRS Companies' Production	28	21	21	18	16	8	W
U.S. Industry Production	418	392	374	381	357	353	368
Surface							
FRS Companies' Reserves	2,982	2,654	779	434	236	W	W
FRS Companies' Production	46	23	15	15	13	W	W
U.S. Industry Production	700	709	700	747	736	718	744

W = Data withheld to avoid disclosure.

Sources: Coal production: 1997-2000--Energy Information Administration, *Coal Industry Annual*, annual reports; 2001-2004 - EIA, *Annual Coal Report*, annual reports.

FRS Companies' data - Energy Information Administration, Form EIA-28 (Financial Reporting System).

Table B35. Consolidating Statement of Income for FRS Companies, U.S. and Foreign Downstream Natural Gas Segments, 2004
(Million Dollars)

Income Statement Items	U.S. Downstream Natural Gas					Consolidated Foreign
	Consolidated	Processing and Gathering	Marketing/ Trading	Transmission	Distribution	
Operating Revenues						
Natural Gas Sales	132,867	20,622	126,445	-	2,311	63,160
NGL Products Sales	18,885	12,929	10,918	-	0	5,052
Transportation Sales	5,149	143	W	4,756	W	W
Other Product Sales	W	-	W	-	-	W
Trading/Derivatives	-567	0	-579	0	0	W
Management and Processing Fees	W	481	32	0	0	220
Other Revenues	2,462	781	1,218	432	W	31
Total Operating Revenues	159,313	34,956	138,046	5,188	2,766	68,861
Operating Expenses						
General Operating Expenses	153,035	33,858	137,483	1,129	2,208	67,720
Depreciation, Depletion, & Allowance	2,094	676	W	947	W	971
General & Administrative	1,690	268	W	1,034	W	147
Total Operating Expenses	156,819	34,802	138,126	3,110	2,423	68,838
Operating Income	2,494	154	W	2,078	W	23
Other Revenue & (Expense)						
Earnings of Unconsolidated Affiliates	1,118	888	44	186	0	W
Gain(Loss) on Disposition of Property, Plant, & Equipment	88	-23	85	26	0	W
Total Other Revenue & (Expense)	1,206	865	129	212	0	946
Pretax Income	3,700	1,019	W	2,290	W	969
Income Tax Expense	1,547	557	W	838	W	140
Discontinued Operations	W	0	0	W	0	W
Extraordinary Items and Cumulative Effect of Accounting Changes	W	0	0	W	0	W
Contribution To Net Income	2,240	462	W	1,538	W	984

- = Not available.

W = Data withheld to avoid disclosure.

Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

Table B36. Consolidating Statement of Income for FRS Companies, U.S. and Foreign Electric Power Segments, 2004
(Million Dollars)

Income Statement Items	U.S. Electric Power			Consolidated Foreign
	Consolidated	Non-Regulated Generation	Marketing/ Trading	
Operating Revenues				
Power Sales	36,986	1,477	31,971	524
Transportation Sales	W	0	0	0
Other Product Sales	W	0	W	0
Trading/Derivatives	W	0	W	0
Other Revenues	414	244	W	21
Total Operating Revenues	39,469	1,721	32,735	545
Operating Expenses				
General Operating Expenses	36,543	1,782	31,655	414
Depreciation, Depletion, & Allowance	591	W	16	W
General & Administrative	679	W	113	W
Total Operating Expenses	37,813	2,012	31,784	630
Operating Income	1,656	-291	951	-85
Other Revenue & (Expense)				
Earnings of Unconsolidated Affiliates	W	W	W	-338
Gain(Loss) on Disposition of Property, Plant, & Equipment	W	W	0	0
Total Other Revenue & (Expense)	109	-13	W	-338
Pretax Income	1,765	-304	1,182	-423
Income Tax Expense	627	-60	358	76
Discontinued Operations	0	0	0	0
Extraordinary Items and Cumulative Effect of Accounting Changes	0	0	0	0
Contribution To Net Income	1,138	-244	824	-499

W = Data withheld to avoid disclosure.

Note: Sum of components may not equal total due to independent rounding, eliminations, and nontraceables.

Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).