In contrast, oil companies deciding how much SPR oil to buy base their decisions on expected market conditions, even though those expectations will reflect currently available information. One consequence of this discontinuity between backward-looking decisions by government and forward-looking decisions by industry is that the Department of Energy has a difficult time determining how to establish minimum prices that will help to ensure that it can actually sell all the crude oil it offers. That difficulty was exemplified during both the test sale and the January sale, when DOE offered sour crude oils at too high a price. The mismatch with market needs was further exemplified by the relative volumes of sweet and sour crude oils offered. The relative offering simply reflected the relative volumes the SPR held, which were based on assessments of past market conditions rather than the current market's high demand for light, sweet crude oils.

Failure to Work Through the Market. Problems with the SPR sales process itself are also counterproductive with the goal of reducing prices. Moreover, the process may add to market uncertainty.

When the ultimate decision to sell SPR oil came in January 1991, a sales procedure patterned on only half of the process followed by private companies cushioned the effect of that decision on oil prices. Companies base their bids on a base reference price in the DOE Notice of Sale--the minimum price--which in turn reflects an average of market prices for different types of crude oil in the days immediately preceding the notice. DOE then awards contracts, starting with the highest bidder and going down until all the oil offered is taken or until the minimum price is reached.

The actual price of oil at the time of delivery, however, reflects the bid prices adjusted for the change over the intervening period in the market prices used by DOE to establish the initial reference price. That is, if the market price declines between the award date and the delivery date, the delivery price would be lower than the bid price by the amount of the change.

Under the SPR sales process, companies had to sign contracts between January 17 and January 25 for buying oil at a price to be determined between February 5 and March 31. The standard procedure for those companies was to hedge against the price uncertainty on at least a part of their purchase by buying futures contracts (or making use of comparable financial vehicles that lock in the delivery price) at the time the contract was awarded. In that way, they would be protected against a price increase: with rising oil prices, they would lose by paying DOE more for the SPR oil but gain an offsetting amount on the rising value of their futures position. Up to this point, the SPR sales procedure is similar to the process private companies use.

Unlike its private-sector counterparts, however, the Department of Energy makes no effort to hedge its sale of SPR oil with a concurrent, offsetting sale of oil futures. Because oil prices fell between the award and delivery dates, DOE lost on its oil sales. However, if the agency had sold futures, it would have gained an offsetting amount on the rising value of its futures position. As it was, DOE lost $9.95 per barrel on low-sulfur oil and $8.70 per barrel on high-sulfur oil.

The issue, however, was not whether the Department of Energy made or lost money but whether it achieved its stated policy goals. Most important, DOE missed an opportunity to apply downward pressure directly on world oil prices by selling futures in January 1991. Not only are futures prices an important indicator of current market conditions, but many contracts for physical delivery tie their price to the price of futures contracts: any action that affects futures prices directly can have an amplified impact on all contract prices.

In contrast to the effect DOE desired, clear upward pressure on oil prices came from the oil companies contracting for SPR oil that purchased futures to hedge their position. The only opportunity for futures prices to decline was if speculators, in anticipation of the physical release of SPR oil, had expected that oil prices would fall and, hence, would have been willing to sell futures to the oil companies at a lower price than otherwise. Any such expectations, however, would have been tempered by the knowledge that DOE was not actually committed to releasing the maximum volume of oil it had contracted to sell; the market's independent assessment of near-term market conditions would also have tempered

expectations. Thus, the immediate effect of the SPR sale announcement on oil markets could only be indirect and had to be less than DOE probably expected.

Revisiting the Decision Against an Early Release of SPR Oil

The U.S. government and the International Energy Agency probably made the right decision in not releasing emergency stocks of oil at the outset of the Persian Gulf crisis, but they did so for the wrong reasons. Moreover, they may have exacerbated the crisis in the process of coming to that decision. The initial loss of Iraqi and Kuwaiti oil on its own supported a decision to release SPR oil. But the prospect that additional Saudi oil supplies might be lost as a result of subsequent Iraqi actions indicated greater expected benefits from holding SPR oil for later use. That conclusion is independent both of the likelihood that the United States could not have reached a consensus with its IEA partners on the need to release stocks and of the fact, established more recently, that the Strategic Petroleum Reserve was not actually in a sufficient state of readiness to support a full, sustained drawdown.

The Benefits from Immediate Release of SPR Oil Rose by Only a Small Amount

Economic benefits from an immediate release of SPR oil in the early fall of 1990 rose to the extent that additional supply at that time could have avoided the near doubling of oil prices between July and October 1990 and helped to lower the nation's imports. With the advantage of hindsight, however, the potential benefit of release was probably small. The losses in output attributable to the price rise were not very large. Hence, the potential gain in output from using a stock release to reduce oil prices would have been small as well. Also, market conditions at the time indicated that any drop in the nation's total imports of oil would have been less than the amount of release.

A Small Loss of Economic Output. Predictions of economic losses as a result of sharply higher oil prices in the fall of 1990 provided support for proponents of government action to bring down prices. For example, the Department of the Treasury put first-year losses in the range of 0.5 percent to 0.75 percent of gross national product, or about $25 billion and $40 billion, respectively.[16] The Congressional Budget Office estimated first-year losses at between 0.4 percent and 0.9 percent of gross national product.[17] CBO also concluded that the price shock contributed to the onset of economic recession in mid-1990.[18]

However in retrospect, some of those estimates of economic loss were probably too high, partly because the price shock of 1990 was much different from those in early periods for at least three reasons.

First, the shock was so short-lived. Second, few analysts expected oil prices to remain permanently at their high, October 1990 level of $31.50 per barrel (the landed cost of imported oil). Evidence of price expectations comes from the futures market, in which contract prices for later-month deliveries were consistently lower than prices for current-month deliveries throughout the crisis (see Figure 14).

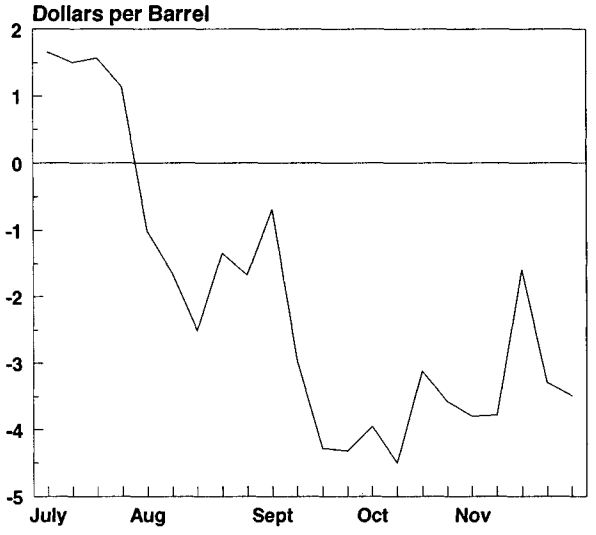
Despite significant uncertainty about when and how far oil prices would ultimately decline, a range of scenarios pointed to some fall in prices, with the circumstances supporting higher prices becoming increasingly less likely as the war progressed. In the most optimistic scenario, if the United Nations forces were to prevail--without the need for a continued boycott of Iraqi and Kuwaiti oil--and Iraq withdrew from Kuwait, oil prices could have fallen to as low as $15 per barrel. That was the level in June 1990, be-

16. Secretary of the Treasury Nicholas Brady, quoted in S. Mufson and H. Rowen, *Washington Post*, August 12, 1990, p. A21. Citation appears in William Hogan, *Oil Markets After Saddam Shock: Prospects and Policies* (Cambridge: John F. Kennedy School of Government, Harvard University, March 1991).

17. Congressional Budget Office, "Effects of the Recent Oil Price Rise on the Economy," CBO Staff Memorandum (September 1990), Table II.

18. Congressional Budget Office, *The Economic and Budget Outlook: Fiscal Years 1992-1996.*

Figure 14.
Maturity Spread on Weekly Futures Prices for Crude Oil, July 1990



SOURCE: Congressional Budget Office based on data from the New York Mercantile Exchange.

NOTE: The maturity spread equals futures contract price on West Texas Intermediate crude oil for delivery in four months minus contract price for delivery in current month.

fore Iraq moved troops to the Kuwait border. In a more pessimistic scenario, if Iraq were to prevail--before it had destroyed the Kuwaiti oil fields--oil prices at worst could have returned to the $20 per-barrel level that Iraq had wanted all along. Initial market uncertainty surrounding the most extreme case, wherein Iraq would exert control over or cause damage to Saudi oil fields and send oil prices higher yet, diminished throughout the fall of 1990 as U.N. forces moved into the region.

Third, the significant withdrawal of private oil stocks muted the effects of higher prices on the U.S. economy. Those withdrawals enabled the economy to reduce its oil imports further (that is, beyond the reduction made possible by lower oil use and greater domestic production) and helped to limit the total increase in the nation's import bill.

In addition to these three factors, the economy may have received some stimulus during the Persian Gulf crisis in the form of cash contributions from its United Nations' allies (see Box 5). Those contributions totaled about $48 billion--exceeding most estimates of a first-year loss to the economic output of the U.S. economy (see Table 5).

The weakening state of the general economy between the second and third quarters of 1990, which coincided with the more than doubling of oil prices after the Iraqi invasion, provided support for proponents of early SPR release. Based on statistical relationships between changes in economic output and oil prices during the preceding 20 years, some energy analysts concluded the oil price rise of 1990 could fully explain the economic downturn at that time.

Box 5.
Foreign Contributions for Operation Desert Storm Brought Small Economic Stimulus

Because of the Persian Gulf crisis, the United States spent more on defense activities in 1990 and 1991 than it had planned. Some of that spending was done abroad; some was done at home. Whether such increased spending at home represented a fiscal stimulus to the U.S. economy would normally depend on how the government financed that spending. In this case, cash contributions the United States received from its United Nations' allies more than covered the U.S. government's increased spending at home. As a result, the government did not have to borrow or raise taxes to finance that spending. Hence, some level of economic stimulus is indeed likely to have occurred. Because the contributions also financed some defense spending that would have taken place without the Persian Gulf crisis, U.S. government borrowing to finance those activities was lower than otherwise--providing a further stimulus to the economy.

Changes in reported economic output in 1990 and 1991, however, do not fully reflect the consequences of the cash contributions the United States received. The national income and product accounts recorded those contributions as net transfer payments from the United States to foreign governments--in this case, a negative value indicating payments from foreign governments. Those payments represent a purely financial transaction, not directly related to the nation's output of goods and services for export.

Table 5.
Foreign Contributions Pledged to Offset U.S. Gulf War Costs (In millions of dollars)

	Receipts		
	Cash	In-Kind	Total
Saudi Arabia	12,809	4,046	16,854
Kuwait	16,015	44	16,059
UAE	3,870	218	4,088
Germany	5,772	683	6,455
Japan	9,466	546	10,012
Korea	150	101	251
Bahrain	0	12	12
Oman and Qatar	0	7	7
Denmark	8	3	11
Total	48,090	5,659	53,749

SOURCE: Congressional Budget Office based on data compiled by the Office of Management and Budget (OMB) and reported in a letter from the Director of OMB to the President of the Senate, November 15, 1992.

NOTE: UAE = United Arab Emirates.

However, alternative explanations for the post-1973 and post-1980 recessions exist, which gives cause to question the usefulness of established statistical relationships. In particular, most analysts point to the restrictive monetary policies--which focus on reducing inflation--as a major culprit behind some economic slowdowns.[19] Actions by the Federal Reserve starting in 1979 to limit the growth of the money supply were probably a major contributor to the onset of recession in 1981. Other analysts have blamed the severity of economic recessions in the past on the existence of price controls.[20] Still others have pointed to the consequences of closer synchronization of business cycles among major industrialized countries in those years.[21] Indeed, the statistical relationship between changes in oil prices and economic activity in later years appears much weaker.

Limited Ability of SPR Release to Bring Down Oil Prices. In any case, the relevant calculation for estimating the cost of holding onto SPR oil was not how big the economic loss was but rather how much a release of SPR oil could reduce the loss. A release could push down losses by contributing to lowering both oil prices and the nation's oil imports.

In focusing solely on the immediate volume of lost supply, many energy analysts pointed to the positive value of SPR release. SPR supplies were nominally sufficient to replace most of the lost Iraqi and Kuwaiti supply for a limited period of time, which led some analysts to conclude that a release could have fully reversed the price increase. The direct level of the U.N. boycott was 4.3 million barrels per day. But, if one accounts for oil production going into storage, Iraq and Kuwait together were supplying only 3.5 million bbl/day to the world market in the second quarter of 1990.[22] At the time, DOE believed the drawdown capability of the SPR also to be 3.5 million bbl/day.

However, the addition to world supply from a release of SPR oil would have had only a small effect on oil prices because factors other than the immediate loss of supply were supporting high prices. For example, CBO's analysis of oil prices at the time observed that total world production by October 1990 was only 1.1 million barrels per day lower than it had been in July 1990.[23] In normal times, such a loss would have justified a price increase to only $25 per barrel, compared with the average price of $31.50 per barrel actually recorded in October. The explanation for the higher price came from the diminished price responsiveness of incremental oil supplies at the

19. Douglas R. Bohi, *Energy Price Shocks and Macroeconomic Performance* (Washington, D.C.: Resources for the Future, 1989).

20. Michael Darby, "The Price of Oil and World Inflation and Recession," *American Economic Review*, vol. 72, no. 4 (September 1982).

21. Michael M. Hutchison, "Aggregate Demand, Uncertainty and Oil Prices: The 1990 Oil Shock in Comparative Perspective," BIS Economic Paper No. 31 (Bank for International Settlements, Basel, Switzerland, August 1991).

22. Adelman, "The 1990 Oil Shock Is Like the Others."

23. Congressional Budget Office, "Understanding the Volatility of Oil Prices During the Iraq-Kuwait Crisis," CBO Staff Memorandum (January 1991).

time, the uncertainty surrounding the duration of the immediate supply loss, and the prospect of greater losses in the future. On that basis, any reduction in oil prices and the related boost to economic output from a full SPR release for a limited period of only several months would have been much less than the initial increase in oil prices.

A Small Offset to Total Oil Imports. The benefits of an SPR release in helping to lower the nation's oil imports would probably also have been small, largely because of offsetting changes in withdrawals of private stocks. A release of SPR oil can change incentives for withdrawal of private stocks if it alters the relative levels of current and expected future prices or of current and future uncertainty.

Market circumstances in the early months of the Persian Gulf crisis indicated businesses generally expected that oil prices in the future would be lower, as evidenced by consistently lower prices for later-month futures contracts compared with current-month contracts. Heightened uncertainty surrounding future prices may also have caused later-month contracts to have less value. Those circumstances created incentives for U.S. businesses to draw down their private stocks of oil. A release of SPR oil at that time could have dampened incentives to draw down private oil stocks by causing an immediate drop in oil prices relative to later months. Such a reduction in private stock withdrawal would have offset some of the contribution of that SPR release to lowering the nation's oil imports.

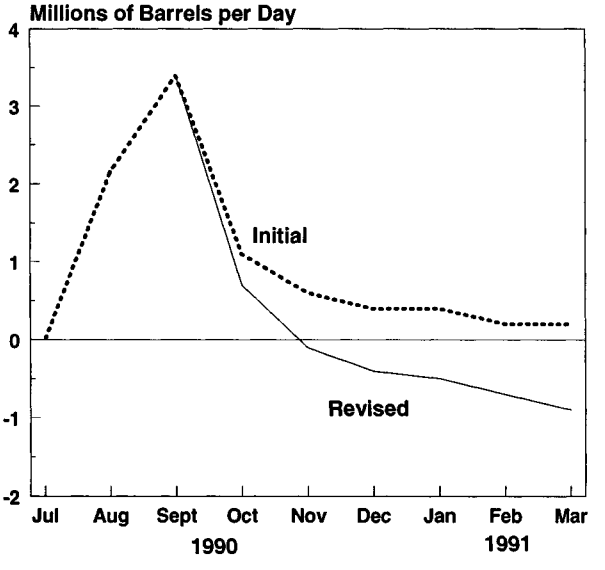
By contrast, there was some reason to believe that, by helping to restore the buffer of worldwide excess capacity to supply oil, a release of SPR oil in August 1990 could have helped to reduce current market uncertainty. That reduction would have amplified incentives to draw down private oil stocks and thereby helped to increase the contribution of an SPR release to lowering the nation's oil imports.

As circumstances evolved, however, the combined effects of rising oil production worldwide, declining oil use (in some countries), and the drawdown of private oil stocks (in some countries) restored the supply buffer by November 1990 (see Figure 15). Thus, the potential benefits of SPR release from further reducing uncertainty would have been limited. Moreover, some of the increase in production by oil-exporting nations would not have been forthcoming had the United States sold SPR oil. Consequently, even the net contribution of an SPR release to reducing market uncertainty would have been less than the direct contribution of SPR supplies to restoring the buffer.

The Expected Benefits from Releasing SPR Oil Later Rose Even More

Regardless of whether a supply disruption indicates that a release of SPR oil can help to avoid some level of economic losses, a release may still not be appropriate if the market circumstances simultaneously point to an increased likelihood of additional disruptions in the near future (and higher expected benefits

Figure 15.
Initial and Revised Estimates of the Shortfall in World Oil Supply, July 1990 to March 1991



SOURCE: Congressional Budget Office based on data from the Energy Information Administration, *Energy Situation Analysis Report* (various issues).

NOTE: Initial estimates prepared by the Energy Information Administration (EIA) in August 1990 indicated how new supplies of oil were expected to offset the loss of Iraqi and Kuwaiti supplies over time. Revised estimates by EIA in succeeding months indicated how fast supplies were actually entering the market.

from a later release). That was the situation facing the U.S. government in the early months of the Persian Gulf crisis. The initial loss of Iraqi and Kuwaiti oil supported a decision to release SPR oil, but the prospect that additional Saudi oil supplies might be lost as a result of subsequent Iraqi actions indicated continued positive benefits from holding onto a large stockpile.

More than one-third of Saudi Arabia's oil comes from fields within 150 miles of the Kuwaiti border. The Safaniya field, which was producing 1.3 million bbl/day in December 1990, is just 75 miles from that border.[24] Those fields were directly threatened by Iraqi forces and were completely undefended until United Nations forces moved into the region later in the fall. Much of the remainder of the Saudi oil fields lie within 300 miles of the Kuwaiti border, including the giant Ghawar oil field, which itself accounted for over half of Saudi oil output in late 1990.

Had additional supplies been disrupted, the subsequent increase in oil prices and economic costs could have been disproportionately greater than the increase in prices and costs attributable to the initial boycott of Iraqi and Kuwaiti oil. The reason is that the world market possessed sufficient flexibility to replace the boycotted 4.3 million bbl/day within a few months through higher production worldwide and lower oil use and private stock withdrawal (primarily in the United States). Oil prices, which had nearly doubled between July and October 1990, were only about 50 percent above their July starting point by December 1990. The market's flexibility was not sufficient to replace quickly another 4 million or 5 million bbl/day within the same time frame. Thus, oil prices would have gone much higher and remained at those levels much longer.

Holding onto SPR oil may also have offered a benefit in deterrence. Because the United States maintained a capability to lower oil prices, it may have kept some oil-exporting countries from taking advantage of the situation. Indeed, some analysts suggest that certain nations deliberately held supply off the market to help boost oil prices.[25]

24. "Saudi Floating Stocks Ready to Replace Shut-In Production," *Petroleum Intelligence Weekly* (January 21, 1991), p. 3.

25. M.A. Adelman, in "The 1990 Oil Shock Is Like the Others," suggests that an early release of SPR oil could have helped to counter any uncompetitive withholding of supplies.

Chapter Four

Program Options for Increasing the Economic Benefits from SPR Use

The experience of the past 20 years provides important lessons on how the government can get greater economic benefits from releasing strategic stocks in a crisis. In particular, institutional changes and the experience of the Persian Gulf crisis have direct implications for how the design of the sales mechanism could help a release of oil from the Strategic Petroleum Reserve to be more effective in reducing economic losses.

The original thinking on the benefits of releasing SPR oil identified only two direct effects of a release toward reducing economic losses: how much SPR oil flows out, and how much oil prices drop as a consequence of that flow. That early focus on volume provided the rationale for the current process for releasing a set volume of oil. The basis for the government's decision to release oil was the immediate loss of supplies and, later on, the immediate rise in prices.

The current view, however, is that the immediate benefits of releasing SPR oil stem from its effect on lowering oil prices and the nation's total oil imports. The drop in total imports may be greater or less than the amount of SPR released. The exact drop would depend on how current oil use and production respond to any decline in oil prices and on how private oil stocks respond to any change in the outlook for oil prices and uncertainty. A final decision to release oil should take into account the circumstances of the disruption and a determination of whether the economic benefits from immediate release exceed those from later release, recognizing that oil prices may rise or become more uncertain with time.

Three Basic Options for How to Sell SPR Oil

The sales mechanism the government establishes for releasing oil from the Strategic Petroleum Reserve can determine how a decision to release oil affects the immediate drop in oil prices. Equally important, it can also affect the expected path and uncertainty of prices, management decisions on inventories, and whether oil imports indeed would fall by more or less than the amount of the SPR release. As a result, the sales mechanism can also affect the benefits from release and, hence, the decision as to when to release oil. With these considerations in mind, one needs to compare the benefits from releasing SPR oil, in terms of lowering world oil prices and reducing the nation's total oil imports, under three different sales mechanisms.

The first, a volume-setting release, is similar to the current sales process, whereby the government attempts to set the volume to be released and lets the market set the price, subject to a minimum acceptable sales price. The presumption in this case is that the government sets the minimum bid price at a level sufficiently below the current market value of the oil. Otherwise, the minimum price would limit the total volume the government can sell, and such a situation would be equivalent to one in which the government sets the release price. If the government decides when and how much oil to sell, the decision to release the oil is effectively at its discretion.

In the second sales mechanism, a single price-setting release, the government establishes a single price for all the SPR oil it releases and allows the market to set the volume--up to the maximum release rate the reserve is capable of supporting. A release price at or above the market value would attract zero bids. In such a case, the government would have to be prepared to accept all bids. Thus, release would be at the buyer's, rather than the government's, discretion.

In the third sales mechanism, a multitier price-setting release, the government establishes multiple tiers of release prices, with increasing volumes of oil to be available at increasing prices. As a result, the market sets both the price and the volume. In economic terms, the government establishes a supply schedule for the SPR oil it wants to release. The government must again be prepared to accept all bids up to the maximum release rate the reserve is capable of supporting. Thus, release is at the buyer's discretion.

For all three mechanisms, whether the sale is at the government's or the buyer's discretion is an important issue because a buyer-initiated sale can be completed faster, signal government intentions about volume and timing of the sale more clearly, and, as a result, entail less market uncertainty.

Providing a Common Basis for Comparing Options

Identifying the fundamental differences among sales mechanisms is complicated because the effect of each on world oil markets varies considerably. For purposes of clarification, consider the market impacts of releasing oil by all three mechanisms under a basic set of assumptions. Specifically, assume that the government chooses a volume to release (for the volume-setting process), a release price (for the single price-setting process), and a price-volume relationship (for the multitier price-setting process) so that the government can sell SPR oil at the same price using all three mechanisms. The basis for comparison is the current, volume-setting type of sales process.

Option I: A Volume-Setting Sale

With a volume-setting sale, oil prices would fall and current market uncertainty would decline if the sale helped to restore the worldwide supply buffer. Under this option, the government would release SPR oil at the maximum rate supportable by existing capacity for pumping and distribution. The assumption is that potential price volatility and uncertainty drop as the buffer is restored. The subsequent effect of lower uncertainty would be to depress the demand for private oil stocks. Consequently, total world and U.S. demand for oil would both drop, as consumers purchased less oil for private stocks.

In this volume-setting option, the government would achieve economic benefits from lowering both prices and imports. Any subsequent rise in oil consumption or drop in domestic oil production as a result of lower prices would diminish the benefits from lowering imports. However, by stimulating an increase in the rate at which private stocks are withdrawn, currently lower market uncertainty would contribute to at least a partial offset to the effects of those changes in consumption and production on total imports.

Despite official statements supporting a maximum drawdown in any situation that warrants release, government efforts to set the minimum release price near the current market price make this a difficult prospect. If the minimum price was too high, the government might end up selling no oil. Any market uncertainty about how low the government would set the minimum price would translate into uncertainty about how much SPR oil would be released. Heightened uncertainty, in turn, would diminish the benefits from a higher rate of withdrawal of private stocks.

Option II: A Single-Price Sale

With a single price-setting sales process, the effects of a release on the market would be different. The most significant consequence of a single price-setting sale would be the change in price volatility and market uncertainty. The drop in the potential volatility

of oil prices and uncertainty would be greater than that resulting solely from restoring the buffer of excess productive capacity--as in the volume-setting option--because the release policy establishes a guaranteed price for oil over a limited range of changing production and consumption. The market effect of this lower uncertainty is a greater reduction in world and U.S. demand for oil, compared with the volume-setting option, since the accompanying reduction in current uncertainty would stimulate a higher rate of withdrawal of private stocks. As a result, the drop in imports would be greater than in a volume-setting sale. The amount of SPR oil that the government would need to release would also be lower than in the volume-setting option.

Less delay from the decision to release to the final sale might also result if a buyer could initiate a price-setting sale, with little of the need for requesting bids and awarding contracts that would mark a government effort to release a set volume of oil. Whether the full impact of the sale on current oil prices would indeed come sooner with a price-setting sale would depend on the specific design of the sales process. The Department of Energy would achieve a greater direct impact on world oil prices than otherwise if it simultaneously hedged that sale of the Strategic Petroleum Reserve by selling futures.

Option III: A Multitier Price Sale

With a multitier price-setting sale, the effects of a release on the market would be different yet. The reduction in current market uncertainty and the stimulus to withdraw larger stocks would again be greater with a multitier price-setting sale than in a volume-setting sale, since the varying availability of SPR oil places limits on price movements. However, that reduction in uncertainty could be greater or smaller than that for a single price-setting sale, depending on whether the release price in the single price-setting sale was far below or close to the prerelease market price of oil.

Benefits may also exist from speeding up the drop in current oil prices by lessening the delay between the decision to release and the final sale. Those benefits would be comparable for both price-setting types of sales if the buyer initiated the multitier sales process and if the process could avoid some of the administrative delays associated with a government-sponsored competition for a set volume of oil.

Legal Impediments to Changing the Sales Process

The current sales process is a part of the Strategic Petroleum Reserve Plan, submitted to the Congress as required by the Energy Policy and Conservation Act. Thus, if the Department of Energy wanted to change its planned method of drawdown and distribution of SPR oil to some type of price-setting process, it would probably have to seek Congressional approval, if not legislative authorization, for that change.

Other legal issues may arise if, in addition, DOE wanted to make use of futures markets or other types of financial instruments to hedge its SPR sales and have a more direct impact on world oil prices. Of particular concern is the issue of whether the Federal Acquisition Regulations would apply to the government's purchase and sale of futures contracts. Those regulations provide detailed requirements on how the federal government is to procure goods and services from the private sector. In contrast to the procedure it follows in most competitive procurements, DOE would not be in a position to solicit and review bids (a process that can take weeks and months) if it wanted to buy a futures contract (a process that takes minutes).

Summary of Findings

In sum, any decisions about what type of sales mechanism would be most effective should reflect an assessment of the relative benefits of each process--in terms of its contributions both to lowering oil prices and total oil imports as well as the subsequent bene-

fits of those changes for the overall performance of the economy. Those benefits may differ depending on market circumstances.

The current policy of releasing a set volume of oil could yield benefits comparable with the other two mechanisms given a supply disruption of known size and duration--that is, zero uncertainty. The principal advantages of both the price-setting sales mechanisms over the volume-setting mechanism is the greater reduction in market uncertainty. A further advantage of the price-setting mechanism may be the greater speed with which SPR oil enters the market.

For any sales mechanism, the benefits from gaining a quick and complete drop in current oil prices would be greater if the government makes efforts to reduce uncertainty about the sales process itself and the government's intentions, expedites the final transfer of title for SPR oil to purchasers, and hedges its sales by using futures contracts or some related risk-management tool.

☆ U.S. GOVERNMENT PRINTING OFFICE: 1994 - 386-526 - 814/27254

CONGRESSIONAL BUDGET OFFICE
Second and D Streets, S.W.
Washington, D.C. 20515