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THE WHITE HOUSE
WASHINGTON

CABINET AFFAIRS STAFFING MEMORANDUM

Date: 1/9/90 Number: Due By:

Subject: January 12 Economic Policy Council meeting:

Domestic airline competition

ALL CABINET MEMBERS	Action	FYI		Action	FYI
Vice President	☒	☐	CEA	☒	☐
State	☒	☐	CEQ	☐	☐
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Defense	☒	☐		☐	☐
Justice	☒	☐		☐	☐
Interior	☒	☐		☐	☐
Agriculture	☒	☐		☐	☐
Commerce	☒	☐		☐	☐
Labor	☒	☐		☐	☐
HHS	☒	☐	Scowcroft	☐	☐
HUD	☒	☐	Porter	☐	☐
Transportation	☒	☐	Breeden	☐	☐
Energy	☒	☐	Cicconi (For WH Staffing)	☒	☐
Education	☐	☐		☐	☐
Veterans	☐	☐		☐	☐
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Chief of Staff	☒	☐		☐	☐
UN	☐	☐	Executive Secretary for:		
IA	☐	☐	DPC	☐	☐
National Drug Policy	☐	☐	EPC	☐	☐
EPA	☐	☐		☐	☐
GSA	☐	☐		☐	☐
NASA	☐	☐		☐	☐
OPM	☐	☐		☐	☐
National Science Foundation	☐	☐		☐	☐
SBA	☐	☐		☐	☐

REMARKS:

RETURN TO:

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THE WHITE HOUSE
WASHINGTON

January 9, 1990

MEMORANDUM FOR THE ECONOMIC POLICY COUNCIL

FROM: LEHMANN LI 
SUBJECT: Economic Policy Council Meeting on January 12

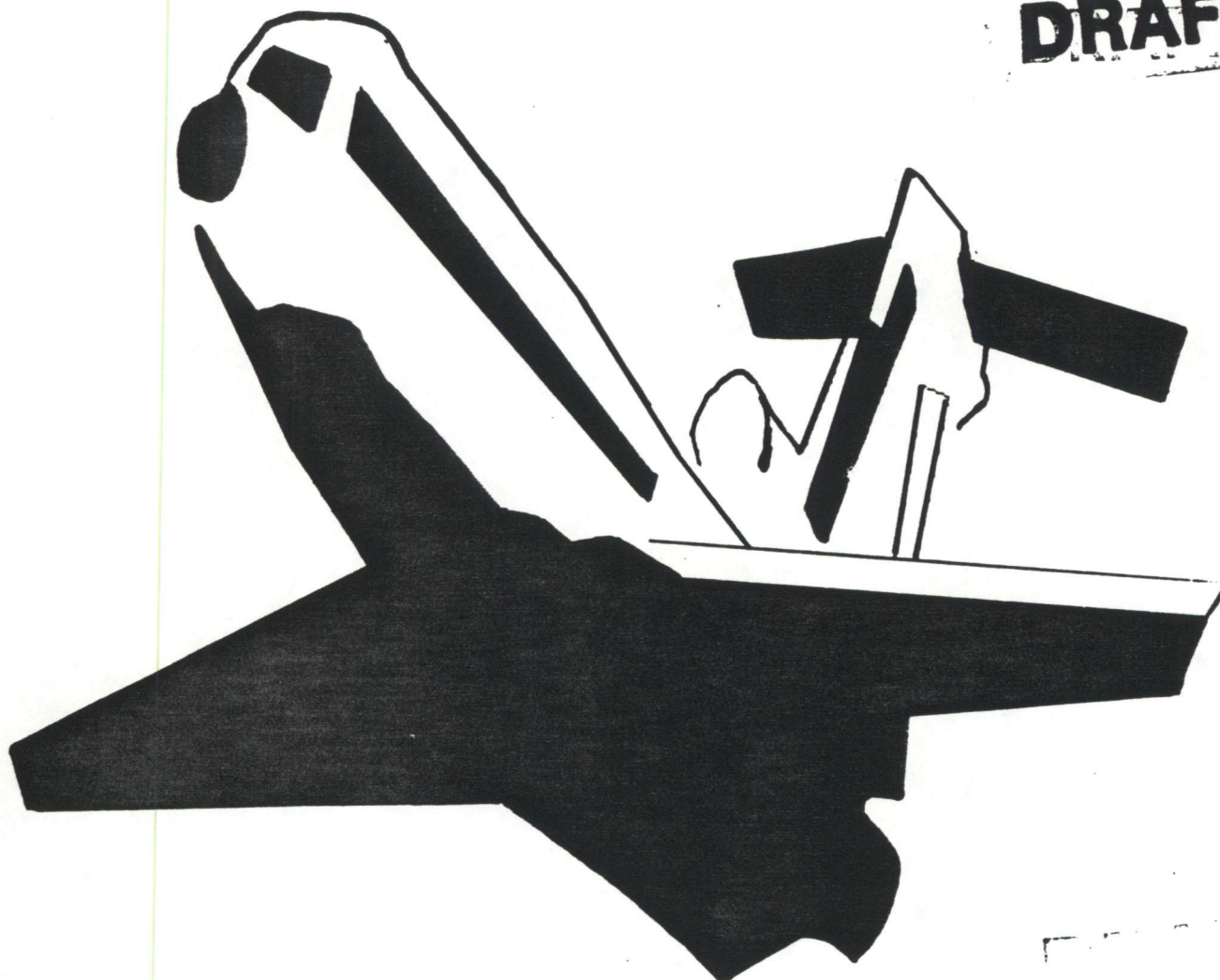
The Economic Policy Council will meet at 10:00 am on Friday, January 12. The EPC will meet in the Roosevelt Room.

The EPC will review the issue of domestic airline competition. The Transportation Department has conducted a study of competition in the US domestic airline industry, which the EPC will review. The Department has prepared the attached draft executive summary of the study.



U.S. Department of
Transportation
Office of the Secretary
of Transportation

Secretary's Task Force on Competition in the U.S. Domestic Airline Industry



DRAFT

DRAFT

EXECUTIVE SUMMARY

Executive Summary

Overview.

The Department of Transportation is responsible for promoting the sound development of our national air transportation system, and ensuring that competition continues to benefit the traveling public. Competition is essential to the maintenance of low fares and high service quality in the airline industry.

The domestic airline industry has undergone significant structural and operational changes during the decade following deregulation. Major carriers have all but abandoned the linear route structure in favor of hub and spoke networks using sophisticated new computer reservation systems, complex pricing strategies, and service agreements among national and regional air carriers. Between 1978 and 1984, the industry expanded from 30 to 38 large carriers, then, consolidated through 11 mergers and 16 acquisitions. Today, 90 percent of the industry's revenue passenger miles is provided by 8 major carriers. Recently, concern over the competitive effects of airline mergers, airport congestion, fluctuating fares, and air safety have arisen. And, as the industry continues to evolve and change, it will continue to face the challenges of maintaining a competitive environment.

At the direction of the Secretary of Transportation, a task force in the Department of Transportation conducted a comprehensive assessment of the state of airline competition. Through a series of studies, the Department has gained a thorough understanding of the state of airline competition, identified the very significant benefits flowing from airline deregulation, and reviewed potential obstacles to competition.

Results in Brief.

The Department's Airline Competition Study has, thus far, examined the structure and service network of the airline industry, airport and air traffic control system barriers to new and existing carriers entering new markets, regional air service, and airline passenger fares. Still to come are two additional studies, now underway, on International Airline Competition and Airline Marketing Practices.

These studies show that air travelers have benefited from the changes brought about under deregulation by receiving more service at a lower cost. Air service networks have expanded, providing more departure frequencies to more airports and travel markets. The wide use of discount fares has made it possible for greater numbers of people to afford air travel. Air carriers, having greater freedom in deploying resources and developing markets, have increased productivity by making better use of capital and labor.

Still, not all travelers and markets have enjoyed the same level of benefits. Passengers departing from or traveling to some hub airports pay higher fares. Hub and spoke operations can also increase airport congestion.

Effect On Service: The most significant change in the airline industry is the development of hub and spoke networks by all major air carriers. The Department's study found that hub and spoke networks have affected air travel in four important ways:

Increased air carrier concentration at many hub airports provides greater frequency, convenience and travel options to the public than were available under the linear route system. The majority of cities with air service received more frequent service in 1988 than in 1979.

The expansion of service networks has increased the number of air carriers competing for passengers in a majority of travel markets. In 1988, more than 55 percent of the passengers traveled in city pair markets served by three or more air carriers, up from 28 percent in 1979.

Smaller cities have been the greatest beneficiaries of the shift to hub and spoke service. Most small cities receive more frequent service than previously, and many now receive service to connecting hubs from more than one major airline or their affiliates, thereby providing the traveler with a choice of airlines and routings to most destinations.

Air carriers operating hub and spoke networks enjoy a substantial advantage at highly concentrated hub airports. They offer high frequency at high load factors. This encourages expansion by dominant carriers at hub airports, thereby contributing to greater hub domination by such carriers. While it has a negligible effect in long haul travel markets, the economic advantage enjoyed by the dominant carriers has resulted in a lessening of competitive service in short haul markets. These markets represent less than 5 percent of the total domestic air traffic.

Effect On New Entry: The entry of new competitors in a market is important to maintaining price and service competition. The Department's study identified two areas where barriers to entry exist:

At certain important airports, a shortage of groundside facilities including boarding gates, holding rooms, baggage handling areas, and aircraft service facilities, represents a barrier to entry by other airlines. Exclusive use agreements and long term leases of gates and other airport facilities between incumbent airlines and the airport also make new entry difficult. Construction of new facilities takes on average two years. Furthermore, in some cases, provisions in existing contracts between airports and airlines can delay or prevent construction of new facilities.

Slot allocation programs at four congested airports where slots are controlled ^{1/} work to preclude entry by new service competitors. New entrants at those airports must rely on the occasional lottery of slots or must attempt to purchase slots from established incumbents.

1/ Kennedy and LaGuardia, New York City; National, Washington, D.C.; and O'Hare, Chicago.

Effect On Regional Air Service: During the last ten years regional air service has been significantly expanded and regional carriers have developed closer operational ties with major air carriers. Regional airlines have concentrated on developing route networks to feed

passengers to major traffic hubs from surrounding smaller areas. The Department's study found that:

Between 1978 and 1988, the number of airports served by regional airlines increased by 25 percent, the number of aircraft operated by regional air carriers doubled, and the number of passengers carried by regional airlines more than tripled.

Most regional airline service is marketed and operated on a code sharing basis. Code sharing agreements and other marketing alliances with major airlines provide greater coordination between carrier flight schedules, allow shared boarding and baggage facilities, simplify ticketing, and permit passengers of regional air carriers to participate in frequent flyer programs offered by major carriers.

Most regional travel markets have adequate competition. Of the top 300 regional air travel markets, 212 markets were served by two or more air carriers, and in 24 markets regional airlines compete with major air carriers.

Effect On Price: The Department's studies found that, contrary to some concerns that the flying public no longer enjoys the low air fares that were available at the onset of deregulation, air fares are lower. Furthermore, changes in fares brought about by hub and spoke systems affect travel markets differently. The study showed that:

In the ten year period since deregulation, air fares have continued their long-term historic decline. After 1981, following an increase in air fares caused by an enormous increase in the cost of jet fuel, air fares adjusted for inflation declined by 26 percent.

After adjusting for inflation, passenger fares in 1988 were down from 1984 by over 15 percent. The decline in fares relative to the increase in costs indicates that air travel remains a good value.

Passenger fares, when compared to the formula used when fares were regulated, were higher in short-haul markets and lower in long-haul markets, consistent with a cost-based, competitively determined fare structure.

For 698 travel markets which were dominated by a single air carrier, passenger fares were on average 14 percent higher than fares for passengers traveling in competitive markets. Travel in these single carrier markets represents approximately 10 percent of the total domestic revenue passenger miles.

At the eight most concentrated hubs, fares were on average 18.7 percent higher than at all other airports. This finding supports the conclusion that high hub concentration leads to high fares for passengers traveling to and from such cities. Fares are highest for travel between large cities within 1000 miles of the hub. These markets represents about 4.1 percent of domestic revenue passenger miles.

While passenger fares declined between 1984 and 1988 at all airports regardless of size, small cities benefited from the greatest decline in fares.

Fares are pressured down when a carrier new to a market is trying to establish itself and gain a share of the market.

Assessment of Competition.

Changes affecting industry concentration and route structure, airport and air traffic barriers, marketing practices, and airline fares, naturally give rise to questions about the competitiveness of the airline industry. Principal findings in each of these separate studies are highlighted below.

Industry and Route Structure.

The large airlines now provide some service to nearly all large and medium sized cities and to many more smaller cities through affiliated regional airlines than they did when route and service patterns were regulated. The large carriers link these cities by coordinating flights at "hub" airports, allowing convenient and frequent connections for most passenger trips.

The evolution of this hub and spoke system for providing service has resulted in more service for the hub city and most smaller cities, and has intensified competition for the vast majority of air travelers. For some non-coastal cities it has led to the dominance of one airline, thus reducing competitive alternatives for some passengers traveling to and from these dominated hubs.

In 1988, 55 percent of the nation's airline passengers traveled between cities in markets where three or more airlines were competing. (A competitor had to carry at least 10 percent of the passengers.) About 53 percent of the nation's passengers traveled in such city pairs in 1984 and only 28 percent traveled in such markets in 1979.

The hub and spoke system works most effectively when an airline has many spoke cities. Each additional spoke strengthens the hub by providing a new destination for the other spokes. This leads naturally to one airline providing most of the flights at its chosen connecting hub. Unfortunately, the dominant airline also has an advantage over other airlines in providing service to and from the hub city. Flights into the hub city carry passengers traveling between spoke cities as well as passengers destined for the hub city. This allows the hubbing airline to provide more service than the local passengers alone would justify. Other airlines generally cannot match the service of the hubbing airline to its hub city. As a result direct nonstop competition into these connecting hubs is limited.

Passengers traveling to a hub from cities more than 1,000 miles away generally have a choice of air carriers. Such alternatives are not generally available for shorter trips, especially for time sensitive non-discretionary travelers. While airlines are competing for passengers through hubs, competition has declined for passengers traveling to hub cities closer than 1,000 miles.

Smaller cities have been the greatest beneficiaries of the shift to hub and spoke service. Most smaller cities receive more frequent service than previously. Moreover, many smaller cities now receive service to several alternative connecting hubs providing travelers at these small cities with a choice of airlines for most destinations.

Airport and Air Traffic Barriers To Entry.

Access to airports and the air traffic control system were reviewed to determine whether these are barriers to the entry of air carriers. If new entrants experience higher costs of production than firms already in the market a barrier to entry may exist.

Airport capacity depends primarily on the physical layout of an airport. Airspace restrictions, the navigational equipment available, and safety factors also impact capacity. When demand exceeds airport capacity for any period, delay results. Delay is a serious concern but delay in itself does not constitute a barrier to entry because the "first come - first served" rule of handling air traffic treats new entrants and incumbents the same.

However, inadequate capacity can lead to allocation programs that limit the number of flights that can be scheduled. Under the High Density Rule Program (HDR), the FAA has established a limited number of takeoff and landing slots at four major U.S. airports. These are Kennedy and LaGuardia Airports in New York, National Airport in Washington, and O'Hare Airport in Chicago. Reallocation of slots at these airports is accomplished through a market-type process that allows slots to be transferred for any consideration.

The slot buy-sell rule has been effective in providing for adjustments among incumbent carriers. However, it has resulted in only limited new entry. Thus, HDR constitutes a barrier to entry into the specific markets involved. In addition, there is no direct linkage between slots and gate access. Gates are also needed at the HDR airports if new entrants do not control such facilities.

Ground facilities such as gates and check-in areas are essential to providing air transport services. A new entrant requires airport facilities that are equal to incumbents in cost and convenience.

The shortage of airport groundside facilities is a serious barriers to entry. A survey conducted by the Airport Operators Council International in 1989 shows that a shortage of gates is a basic problem. Nineteen of the 30 large hub airports indicated that no gates would be available within 90 days.

The lead time for construction of permanent gates is well over two years on average. Also, certain existing provisions in the contracts between airport authorities and their current airline tenants can delay or prevent construction of new gate facilities. Exclusive use, long-term leases for gates and other airport facilities are factors that make new entry into airports difficult. While a new entrant may be able to sublease airport facilities, it is likely that its cost will be higher than the lessor's cost. Also, the sublet facility may not be as good as those the incumbent retains. Thus, even with subleasing, barriers continue to exist.

Environmental regulations do not constitute a significant barrier to entry. Federal regulations do not discriminate between new entrants and incumbents, and thus the costs faced by each class of carrier are essentially the same. Assuming that any new Stage 3 aircraft noise requirement has a reasonable phase-in-period, and that noise hush kits are available for the most popular aircraft types, noise is not a barrier to new entry.

At a few small airports, local restrictions act the same as allocation programs. If such local regulations were to proliferate, the conclusion about environmental regulations as a barrier to entry would have to be reviewed.

Any new service requires aircraft equipment. At present, it is difficult to get early delivery of new equipment from the primary aircraft manufacturers. New aircraft production is booked up into the early 1990s. If manufacturers were the only source of equipment, aircraft availability would clearly be a problem. However, aircraft are mobile capital assets and there is an active worldwide market in both used aircraft and leased aircraft. The cost of equipment is about equal for existing carriers and new entrants. Thus, aircraft availability does not represent a general barrier to entry.

Regional Airline Competition.

The regional airline industry provides an important link between smaller communities and the nationwide service network operated by major air carriers. During 1988, regional air carriers served more than 4,000 city-pair markets. The largest 1,000 of these accounted for more than 90 percent of all regional airline passengers. As many as ten percent of all passengers traveling on flights operated by the nation's major airlines transferred to or from a flight operated by a regional airline during the course of their trips.

As the nation's large air carriers adjusted their route networks following deregulation to focus on major hubs, regional airlines concentrated on developing route networks to "feed" passengers to major traffic hubs from surrounding smaller communities, often utilizing larger aircraft than they were permitted to operate before deregulation. Some regional carriers entered into joint marketing alliances with major airlines, which were intended to facilitate transfers by passengers from feeder flights operated by an individual regional carrier to flights operated by a major airline. Under these agreements, regional and major carriers coordinated their flight schedules, located boarding gates and baggage facilities near each other in airport terminals, and simplified "through ticketing" and baggage checking for passengers switching from one carrier to another.

With the expiration of the mandatory joint fare provision of the industry-wide interline agreement in 1983, the regional airlines began the transition to largely exclusive fare and passenger transfer arrangements with individual major carriers. This transition, which proceeded most rapidly after 1985, was hastened by the development of "code sharing" agreements, under which regional carriers' flights were identified in airline computer reservation systems and the Official Airline Guide by the codes used to designate the major carriers with which regional airlines established such agreements.

Major air carriers subsequently canceled joint fares with regional carriers other than those with which they had code sharing agreements, and expanded their frequent flyer programs to include those regional carriers. Additionally, some major carriers acquired significant financial interests in their regional code sharing partners. Today, virtually all regional airlines of significant size participate in such a code sharing arrangement with a major airline and most regional airline service is marketed and operated on a code sharing basis.

Most heavily travelled markets served by regional airlines during 1988 involved competition between regional carriers or among regional and major airlines. Among the regional airline

Industry's 300 most heavily travelled markets, 212 were served by two or more regional airlines, while major carriers provided direct competition in another 24 markets. Regional carriers serving these markets operated an average of 72 weekly flights (in each direction) during 1988.

Direct competition between regional operators was less widespread among the sample of 50 smaller markets analyzed. Slightly fewer than half (48 percent) of these markets were served by two or more regional carriers, with relatively few (14 percent of the sample of 50) receiving competing service from three or more regional airlines. Only two of these 50 markets also received service from major carriers.

Regional airline service from surrounding small communities to Minneapolis-St. Paul and St. Louis has been affected by the mergers that consolidated major airline service under a single operator. The net effect of these changes on these communities is difficult to assess. The number of non-hubs and small hubs with direct regional airline service to Minneapolis-St. Paul increased sharply, while the number with service to St. Louis increased slightly. At the same time, the average frequency of service from non-hub and small hub points to Minneapolis-St. Paul rose slightly, but declined somewhat at St. Louis. The fraction of this service that was provided on a nonstop basis rose at both Minneapolis-St. Paul and at St. Louis.

The number of markets in which two or more regional air carriers offered competing service declined sharply in both Minneapolis-St. Paul and St. Louis, as did the number served by an independent (i.e., non-code sharing) regional air carrier. Most of the small communities that lost competitive regional airline service to Minneapolis-St. Paul or to St. Louis received regional service to at least one other major airline hub.

Pricing.

In the ten year period since deregulation, real air fares have declined. After an initial increase in fares between 1979 and 1981 caused by an enormous increase in the cost of jet fuel, air fares, adjusted for inflation, declined by 26 percent. Since 1984, the average air fare per mile paid for travel in the United States has also declined. Adjusting for this general increase in prices, air fares were down by over 15 percent between 1984 and 1988. Air fares went up between 1986 and 1988, but the airlines' costs of providing air service were up even more. Overall, air fares were a good value for most people in 1988 because airlines were competing harder than ever for passengers between most cities.

When comparing markets in 1988 where a single airline provided nearly all the service to other markets, average fares were 14 percent higher and fewer discount fares were sold. Only about ten percent of the miles flown by passengers were in these single-carrier markets and most of these trips were less than 500 miles.

Higher average fares were paid by passengers traveling to and from connecting hubs where one airline provides most of the service. Fares to and from the eight most concentrated hub cities (where one airline boarded 75 percent or more of the passengers in 1988) were studied. The cities were: Charlotte, Cincinnati, Dayton, Memphis, Minneapolis/St. Paul, Pittsburgh, St. Louis, and Salt Lake City. The fares were on average 18.7 percent higher than fares to and from other cities. Fares to these eight cities were also high in 1984, when there were more carriers operating.

The fares at the eight concentrated cities were generally higher for trips of between 250 and 1,000 miles to and from larger cities. For short trips (less than 250 miles) fares must often be competitive with the cost of driving. For longer trips (over 1,000 miles) there are usually several airlines to choose from, even at cities where one airline offers most of the flights. This competition which relies on the use of other connecting hubs appears to result in lower air fares for longer trips.

Only 4.1 percent of miles flown by passengers are in the high fare trips to the eight concentrated connecting hubs.

Air fares were also studied for a second group of eight cities where two airlines provide most of the service. The cities were: Atlanta, Chicago, Dallas, Denver, El Paso, Houston, Nashville, and Raleigh/Durham. Some of these cities had higher fares and some had lower fares when compared to other cities around the country. The highest average fares were paid at Atlanta where Delta and Eastern have major connecting hubs. This indicates that the pressure of a second major airline does not guarantee lower fares for local passengers. On the other hand, at Chicago fares were generally higher than at other cities in 1984, but were about equal to other cities in 1988. The competition for local Chicago passengers provided by Midway Airlines and Southwest Airlines at Midway Airport may explain the improvement in local fares.

Average fares were lower in 1988 than in 1984 at airports of all sizes. Fares declined even more for small cities than for large cities.

Finally, fares are lowest when a carrier is trying to establish itself in a new market. Once a carrier establishes itself, however, fares tend to go back up.

THE WHITE HOUSE
WASHINGTON

January 23, 1990

EPC Meeting

AGENDA

1. Strategic Petroleum Reserve

750 MB
Scowcroft re cost-benefit / Boskin

URGENT

THE WHITE HOUSE
WASHINGTON

CABINET AFFAIRS STAFFING MEMORANDUM

Date: 1/22/90 Number: _____ Due By: _____

Subject: January 23 Economic Policy Council meeting:

Strategic Petroleum Reserve

	Action	FYI		Action	FYI
ALL CABINET MEMBERS	☐	☐	CEA	☒	☐
Vice President	☒	☐	CEQ	☐	☐
State	☒	☐	OSTP	☒	☐
Treasury	☒	☐	_____	☐	☐
Defense	☒	☐	_____	☐	☐
Justice	☐	☐	_____	☐	☐
Interior	☒	☐	_____	☐	☐
Agriculture	☒	☐			
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Labor	☒	☐	Porter	☐	☐
HHS	☐	☐	Breiden	☐	☐
HUD	☒	☐	Cicconi (For WH Staffing)	☒	☐
Transportation	☒	☐	_____	☐	☐
Energy	☒	☐	_____	☐	☐
Education	☐	☐	_____	☐	☐
Veterans	☐	☐	_____	☐	☐
OMB	☒	☐	_____	☐	☐
USTR	☒	☐	_____	☐	☐
Chief of Staff	☒	☐			
UN	☐	☐	Executive Secretary for:		
CIA	☐	☐	DPC	☐	☐
National Drug Policy	☐	☐	EPC	☐	☐
EPA	☒	☐	_____	☐	☐
GSA	☐	☐	_____	☐	☐
NASA	☐	☐	_____	☐	☐
OPM	☐	☐	_____	☐	☐
National Science Foundation	☐	☐	_____	☐	☐
SBA	☐	☐	_____	☐	☐

REMARKS:

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THE WHITE HOUSE
WASHINGTON

January 22, 1990

MEMORANDUM FOR THE ECONOMIC POLICY COUNCIL

FROM:

LEHMANN LI 

SUBJECT:

Economic Policy Council Meeting on January 23

A slightly revised paper for tomorrow's Economic Policy Council meeting on the Strategic Petroleum Reserve (SPR) is attached. The major addition is a new option for the SPR size issue on page 8.

STRATEGIC PETROLEUM RESERVE OPTION PAPER

- ISSUES:
1. Should the U.S. Strategic Petroleum Reserve (SPR) be expanded from its currently authorized level of 750 million barrels?
 2. Should further SPR development be financed by means other than direct appropriations?

INTRODUCTION:

Public Law No. 101-46 extended Title I of the Energy Policy and Conservation Act (EPCA) through April 1, 1990, and required the Secretary of Energy to transmit to Congress by February 1, 1990, a report on alternative means of financing the SPR. The financing question was raised in the context of Congressional sentiment to expand the SPR to 1 billion barrels. In signing P.L. 101-46, the President said that the nine-month extension "allows sufficient time for the Administration to complete an interagency study of the SPR's size." Studies of SPR size and financing alternatives have been completed, and reports of findings are being made ready for transmittal to Congress on February 1, 1990. The reports contain no recommendations.

BACKGROUND

The SPR was first authorized in 1975 at a minimum size of 500 million barrels and a maximum of 1 billion barrels. The Ford Administration chose the minimum size in 1976 and the Carter Administration chose the maximum size as a goal in 1977, but only proceeded with implementation of a 750 MMB SPR. Reagan Administration SPR policy, based on reliance on market forces, differed from that of many other OECD nations which focused on demand restraint, price and allocation controls, and privately held, government controlled stocks. Reagan Administration decisions in 1982 and 1986 supported the 750 MMB size. In 1987, a DOE report to the President on energy security reaffirmed a 750 MMB reserve on the basis of a similar assessment. In 1988 a contracted study which was not reviewed by any other agency, recommended a 1 billion barrel reserve based, inter alia, on a 80 percent likelihood of a severe oil shortage in the near to mid-term. Congress is aware of all these studies, which will condition their views of the current one.

Congressional concern over SPR size is based in part on growing U.S. oil imports as a percent of demand. In 1985, net oil imports represented less than 30 percent of total demand. Current imports represent over 40 percent and are projected to comprise 50 percent by 1995. By the same token, US SPR stocks

today cover total imports for 81 days whereas 1978 stocks cover less than 10 days of imports. (Note: A 750 MMB reserve is projected to provide an estimated 74 days of coverage in 2000). Moreover, even in the event of a severe interruption, it is highly unlikely that the US would lose more than half of its imports.

The Bush Administration policy has been to complete a 750 million barrel SPR by the mid 1990's. For FY 90, the President proposed a fill rate of 75,000 barrels per day, which is also the statutory minimum fill rate. However, Congress provided funds for approximately 40 mb/d. SPR inventory is projected to be 591 MMB by the end of FY 1990. For FY 1991, the President's budget assumes a 750 million barrel SPR and a fill rate of 59 MB/D in FY 91 and of 50 MB/D in FY 92-95. Under the FY 91 projections, the 750 MMB inventory would be completed in 1999. If this size were increased to 1 billion barrels by 2005, the fill rate would have to be raised to 75 mb/d and the President's budget would have to be amended.

The SPR assures substantial protection against temporary supply interruptions, but its cost has been substantial. The per barrel budget outlay cost of SPR oil currently in inventory is \$27. When the cost of storage facilities and treasury borrowing costs are factored in, the total Federal financial costs are estimated at \$56 per barrel. World oil prices are about \$20 per barrel.

OIL SUPPLY INTERRUPTIONS AND THE STRATEGIC PETROLEUM RESERVE

Since 1950, there have been 13 oil supply interruptions equal to 1 percent or more of free-world oil consumption. All were accommodated in varying degrees by surge production from excess capacity, higher prices, and commercial inventories. The oil supply disruptions of the 1970s prompted nations to begin holding strategic stocks. International Energy Agency (IEA) member nations reached agreement in 1974 on an International Energy Program (IEP) which mandates stock levels (comprising strategic stocks and privately held inventories) equivalent to 90 days of the previous year's net imports, and other measures for dealing with supply disruptions. For IEP purposes, U.S. oil stocks (SPR and private) currently provide 190 days of coverage and are estimated to provide 141 days of coverage in 2000 with a 750 million barrel SPR.

Because the price of oil in any one country is related directly to the price of oil on the world market, all net importing countries would benefit from lower oil prices resulting from any country releasing stocks during a disruption. Given this interdependence and the high cost of strategic oil reserves, it is desirable that the burden of holding stocks be shared by other major importing countries.

U.S. imports equal about one-third of total IEA imports. But, in terms of national consumption, the U.S. is substantially less reliant on imports than other major oil consuming nations. Nevertheless, the U.S. currently has nearly 60 percent of total IEA government-owned oil stockpiles; about twice the level of government-owned stock protection as Japan (in terms of days of net imports coverage); and about three times that of OECD Europe.

By the end of 1990, there will be the potential to offset, for six months, a loss of as much as 13 million barrels per day (MMBD) of oil supply or a maximum of 25 percent of free world consumption, assuming all excess capacity, including that in the Middle East, is used. The U.S. SPR alone can offset about one-quarter of this loss, the remainder coming from possible release of foreign strategic/commercial stocks, utilization of worldwide excess production capacity, and fuel switching. For reference, the 1973/74 Arab oil embargo reduced world oil supplies by 1.6 million barrels/day, and the 1979 Iranian revolution by 3.7 million B/D. To place in perspective the 25 percent total free world offset, and US coverage capability, the 1973/74 Arab oil embargo eliminated 3.4 percent of consumption, and the 1979 Iranian revolution eliminated 7.6 percent of consumption. Potential incremental supplies plus fuel switching available today are over 3 times the largest interruption of the 1970's.

Although substantial protection exists today, oil market conditions during the 1990s point to steady increases in oil demand, a decline in production from non-OPEC countries, and a growing dependence on Persian Gulf oil supplies.

- o Free world oil consumption is projected to steadily grow to about 55 million b/d by 2000.
- o Non-OPEC supplies are projected to decline by about 3 million b/d to about 24 million b/d by 2000.
- o Demand for OPEC crude oil will rise to roughly 29 million b/d by 2000.
- o Persian Gulf production could rise from the current 15.5 million b/d to over 20 million b/d -- or near 40 percent of demand in the market economies.

- o Excess world production capacity is also projected to decline during this period.

SPR SIZE STUDY FINDINGS

An interagency study group chaired by DOE with representatives from Treasury, State, Defense, CIA, CEA, Interior, OMB, and NSC, FEMA, and DOC, analyzed the quantifiable economic benefits and cost of two SPR size increments: 600 to 750 MMB, and 750 MMB to 1 billion barrels. The study concentrated on severe oil supply disruptions involving sharp reductions in world oil production that were 2 to 4 times larger than the largest 1970s interruption. The disruption sizes and probability of occurrence of these scenarios were supplied by CIA. The key findings of the study are:

- o Using mid-range assumptions, the expected present value costs of moving from 600 to 750 MMB would be \$1.99B,* while the present value of the benefits would be \$0.94B; that is, costs exceed benefits by 2 to 1. The present value cost of moving from 750 to 1,000 MMB, would be \$3.37B, with benefits of \$0.75B and a cost/benefit ratio 4.5 to 1. Using a range of values for each individual assumption, the study found that net benefits for this "mid-range" case remained negative.
- o Sensitivity analyses combining a range of low and high value assumptions indicated that the 600 to 750 MMB increment generated positive net benefits in some cases. The 750 to 1000 MMB increment yielded net benefits in only a small number of sensitivity cases where the value generating the most benefits was used for most of the assumptions.
- o The current size of the SPR (580 MMB) and the current Administration goal (750 MMB) provide substantial protection even though oil import levels are projected to exceed 10 MMB/D by 2000.
- o If a very severe disruption occurs (annual probability of .01), the benefits provided by a 750 MMB SPR significantly outweigh the incurred costs. A 1 billion SPR, assuming a six-month very severe disruption, would provide incremental benefits equivalent to \$7.00/barrel lower oil price, or \$37 billion in avoided economic costs (about 1/2 of 1 percent of GNP).

* Does not include the salvage value of SPR or the price effects of SPR purchases on world oil prices.

Any study that attempts to project 30 years into the future deals with extraordinary uncertainty. Sensitivity analyses of economic factors were done to address this issue, but world events and reactions can differ markedly from projected behavior. Moreover, non-economic factors are now, as they have been in the past, central to policy decisions on SPR size.

A number of prior studies, some classified, have addressed the strategic importance and insurance value of the SPR to the U.S. and its allies. The results of these studies have been incorporated in the current effort and are summarized below.

STRATEGIC CONSIDERATIONS

The SPR is a critical component of the nation's energy security policy. A strong SPR provides the President with an important tool for dealing with future oil supply disruptions. The interagency study identified a number of benefits that would result from an SPR larger than that justified by cost/benefit analysis alone. These benefits, while not quantifiable, are important to consider in making a judgment on the size of the SPR. A 600 million barrel SPR provides substantial benefits toward each of these other considerations which include:

- o national security/force deployment objectives: a strong SPR reduces constraints on Presidential decisions to use military force to deal with hostilities coincident with a supply disruption.
- o military preparedness: the SPR contributes directly to command flexibility by holding oil that supports the exercise of military options, although Defense oil consumption is a very small percent of total US consumption. In a major conventional war oil products become critical and direct military consumption would likely be twice to four times peace time rates. The SPR mitigates the effects of military oil demand on civilian requirements.
- o foreign policy objectives: the U.S. continues to have critical foreign policy objectives in the Middle East that could be affected by oil supply disruptions or embargo threats; confidence that energy supplies are secure strengthens the resolve of the American public and enhances the ability to maintain a cohesive foreign policy consensus with our allies.

- o deterrence to politically inspired disruptions: the SPR, even at current size, demonstrates to producers that the U.S. has the ability to resist an oil embargo effort, thus creating a "stand off" that reduces the incentives for potential adversaries to engage in disruptive activities.
- o provides time for diplomacy and orderly decision making: in the event of future hostilities in the Persian Gulf, the President will need time to seek diplomatic solutions and to decide on the appropriate utilization of U.S. military force. The SPR provides additional time to do both.

In addition to the foregoing, the study points out that an SPR larger than dictated strictly by cost/benefit criteria helps to sustain a free market strategy in the face of public pressure for a more intrusive approach, provides insurance for real world decision making, and bolsters American leadership in promoting international energy security.

These points speak to the advisability of maintaining a SPR, which is not at issue. The issue is what incremental benefit is provided to US security for the large costs associated with further expansion of the SPR.

Issue I: What Should be the Administration's SPR Size Goal?

Option 1: Fill the SPR only to 600 MMB

Advantages:

- o Saves about \$3.5 billion in budget costs or about \$500 million annually compared with filling to 750 MMB, assuming no alternative financing mechanisms are used.
- o In concert with West German and Japanese strategic and commercial stocks, and projected excess capacity, the 600 MMB SPR provides substantial protection against large interruptions, and provides ample deterrence against embargoes.
- o Is justifiable on both economic and strategic grounds.
- o Preserves the option to fill to 750 million barrels because the investment in facilities is nearly complete.

Disadvantages:

- o Assuming a highly unlikely worst case interruption occurs, U.S. economic losses would be higher by \$24.1 billion (3/10 of 1 percent of GNP) compared to a 750 million SPR, and \$61.3 billion (8/10 of 1 percent of GNP) compared to a 1 billion SPR.
- o Would be opposed by members of Congress who advocate greater U.S. energy security, and will be perceived as a retreat from Administration stated policy to fill the SPR to 750 million barrels.
- o Would provide relatively less protection against multi-lateral, politically inspired disruptions.
- o Would undermine U.S. attempts to encourage other IEA members to increase strategic stocks. (In the May 1989 IEA Ministerial, Secretary Watkins reaffirmed U.S. commitments to a 750 MMB SPR).

Option 2a: Retain the Current Goal of Filling the SPR to 750 MMB**Advantages:**

- o Of the two size increments evaluated, the 600-750 MMB increment generates the least negative cost/benefit results.
- o Provides an additional margin of safety in the event of a worst case disruption.
- o Retains commitment made to U.S. allies.
- o Consistent with the President's FY 1991 budget and the existing Administration position on SPR size.

Disadvantages:

- o Under mid-range economic assumptions, the 600-to-750 million increment yields a net cost over benefit of \$1.0 billion.
- o To increase the SPR from 600 to 750 MMB will require budget outlays of \$3.5 billion, assuming no alternative financing mechanisms are used.

Option 2b: Reaffirm 750 million barrel SPR goal; defer decision on desirability of larger SPR.

Advantages:

- o Postpones decision on ultimate SPR size pending results of efforts to develop alternative financing mechanisms which may improve economics.
- o Does not cause immediate conflict with Congressional supporters of a 1 billion barrel SPR.
- o Is consistent with Administration policy while preserving flexibility to respond to unexpected market and geopolitical conditions.

Disadvantages:

- o Congress must extend (probably for two years) SPR authorization by April 1, 1990. If Administration has no firm position, Congress will most probably approve a 1 billion SPR without awaiting Administration re-assessment.
- o Substantially weakens Administration position. After completion of a 6 month interagency study, Administration position should be clear.
- o Undermines FY 91 President's budget for a 750 MMB SPR.
- o Diverts attention from the significance of the investment and achievement of a 750 million barrel SPR.

Option 3: Increase the SPR from 750 MMB to 1 Billion Barrels.

Advantages:

- o Enhances strategic benefits associated with a larger SPR.
- o Provides a further margin of safety against economic damage.
- o Addresses concerns about increased energy security and rising U.S. oil imports.

Disadvantages:

- o The expected net benefits of increasing the SPR from 750 MMB to 1 billion barrels, in the mid-case scenario, are strongly negative. Costs exceed benefits by a ratio of 4.5 to 1.
- o Unless alternative financing mechanisms are used, this option increases budget costs by nearly \$12 billion (over the 750 MMB SPR) and would require changes to the President's FY 1991 budget if this target is to be achieved by 2005.
- o A 1 billion barrel SPR could provide disincentives for other oil importing countries to increase their strategic stocks.

Budget Levels/Costs for SPR Size Options*
(Change from FY-91 Budget in Millions)

		FY-91	FY-92	FY-93	FY-94	FY-95	TOTALS
Option 1 (600 MMB)	BA	- 228	- 363	- 376	- 389	- 402	-1,758
	O	- 215	- 368	- 375	- 388	- 401	-1,747
Option 2 (750 MMB)	BA	0	0	0	0	0	0
	O	0	0	0	0	0	0
Option 3 (1,000 MMB)	BA	+ 180	+ 190	+ 373	+ 932	+ 544	+2,219
	O	+ 150	+ 182	+ 350	+ 758	+ 653	+2,093

* FY 91 budget estimates, which are approximately in line with low case presented in SPR Financing Study

II. STRATEGIC PETROLEUM RESERVE FINANCE OPTIONS

INTRODUCTION:

The study of SPR financing alternatives was carried out through an interagency process parallel to, and involving the same agencies that participated in, the SPR size study.

The study analyzed the circumstances under which leasing would have costs equivalent to, or less than, those of outright purchase. The term leasing was interpreted to cover a broad class of contract structures, including some which could also be called options. Under an oil lease, the Government would obtain control, but not necessarily ownership, of the oil delivered to the SPR. The Government would reserve to itself certain choices regarding the disposition of the oil at the time of lease maturity or of an SPR drawdown. For example, the Government might reserve the options to buy the oil or to cause the oil to be sold during a drawdown. The study identified many lease provisions that would need to be carefully structured to ensure that the President's flexibility in an emergency would be maintained.

The study analyzed a wide range of financing options in addition to direct appropriations and oil leasing. These include a revolving fund created from NPR receipts, oil-denominated bonds, various fees and charges, and mandatory private sector storage. All of these options present policy or technical problems that discourage further consideration.

The SPR financing policy alternatives under active consideration contemplate authorizing, rather than requiring, the leasing method. Study results indicate that leasing of SPR oil through competitive commercial arrangements is unlikely to result in contract terms favorable to the U.S. Government. Because of the higher costs of capital, commercial financing arrangement likely would be more costly to the Government than financing through annual Federal appropriations. Any favorable lease arrangement is likely to involve a government-to-government agreement with a leading oil producing country, on terms that would provide SPR oil at the equivalent of less than market price.

The SPR size study did not assume the use of alternative financing mechanisms. If the cost of SPR oil could be substantially reduced through some leasing arrangement, the cost/benefit analyses of SPR size would change. Also, depending upon the type of alternative financing employed, the strategic benefits of a larger SPR could also change. For example, a major producer leasing oil to the U.S. would be less likely to take adversarial action that would trigger the use of leased stocks.

Issue: What should be the Administration's position on financing additional SPR development?

Background

Direct appropriations to expand the SPR from 600 MMB to one billion barrels are estimated to be approximately \$19 billion, including over \$5 billion (in acquisition and management costs) in the next six years, to achieve the current 750 MMB target. These sums are exclusive of Treasury's cost of borrowing, which is recorded on budget as interest on the public debt.

Oil Leasing

Leasing oil for the SPR would be a viable alternative to the extent that its cost would be less than the cost of direct purchase. The private sector's cost of capital is higher than Treasury's, but some producing countries have surplus capacity and geo-political interests which may permit the lease of oil to the SPR at lower than commercial rates. New legislation would be required to permit DOE to pursue this alternative.

For purposes of the study, DOE developed a "lease/option" approach with the following principal features:

- o Term: 10 years.
- o Minimum transaction size: 5 million barrels.
- o Minimum delivery period: 1 year, with semiannual solicitations.
- o The lessor's capital recovery after disruption and drawdown, or at the end of the lease term, would be at the "option" of the Government, including (1) a return of "wet barrels," (2) payment based on prevailing market prices, (3) payment with a 5% or 10% cap on compound price appreciation, and (4) extension or renewal of the lease.
- o Provisions for monetary adjustments to reflect the likelihood that the lessor would not receive a quantity or quality of oil identical to that originally delivered.
- o Exemptions from certain environmental, tax and ancillary regulatory requirements and costs (most prominently the Cargo Preference Act, which requires 50 percent U.S.-flag shipping for government purchases) that could raise costs to the lessor above those obtained in a strictly private transaction.

This model was then subjected to break-even analyses under various assumptions. The issue is: What lease payments would make the Government indifferent on the choice between leasing and purchasing? The effort underscored how sensitive conclusions can be to the assumptions. The analytical results do not demonstrate that leasing, in general, will provide cost savings to the Government.

Options

Option 1. Direct Appropriations: Retain current policy of direct Federal acquisition of storage facilities and oil through normal budget process.

Advantages

- o No alternative to Treasury financing has been demonstrated to be a lower cost method of financing SPR.
- o Maintains full Federal ownership of SPR assets.
- o Current method provides direct annual budget control and uses existing tax collection and borrowing systems.

Disadvantages

- o Current budget levels (about 50,000 B/D), if maintained, would achieve the 750 MMB target in 1999. If approved, a 1 billion target would not be reached until after 2013.

Option 2a. Competitive Lease: Seek authority for competitively bid contracts for oil leasing.

Advantages

- o Government gains control over oil without financing full ownership. Ownership risk/reward stays in private sector.
- o Less foreign policy impact than Option 2b.
- o Would be in line with growing private market for oil swaps and other financial instruments.

Disadvantages

- o Would likely be more expensive than direct purchase, and would reduce annual budgetary control and flexibility.

- o Producer countries which would be in the best position to respond, such as major Persian Gulf producers, are unlikely to participate in a public competition.
- o Public solicitations would limit lease design options.
- o Would likely require a large number of separate leases, with attendant complexity at time of SPR drawdown.

Option 2b: Negotiated Lease. Seek discretionary authority for oil leasing (including comparable legal arrangements such as options for purchase) and pursue bilateral negotiations with one or more major producing nations. As in Option 2a, lease amounts would need to be consistent with current approved budget authority levels.

Advantages

- o Offers potential for financing increased strategic protection at present values lower than direct purchase.
- o Leasing from (or a comparable arrangement with) a major producer could result in incremental oil production.
- o Leasing from a major producer could create a strategic relationship that would promote energy market stability.
- o Near-term outlays could be reduced in comparison to direct purchase, but leasing would still require advance appropriations.

Disadvantages

- o The government's ability to negotiate mutually satisfactory lease terms is highly uncertain, and failure could prove both frustrating and politically embarrassing to both sides.
- o Lack of competition would be troublesome when negotiating hard-to-price security arrangements.
- o Leasing requires new legislation, and a coordinated U.S. position that such a relationship with a major producer is desirable, or at least not objectionable.
- o U.S. oil producers may object to a "sole source" negotiated deal with foreign producers.
- o Long term lease agreements would reduce annual budgetary control and flexibility.

Size Study Assumptions

<u>Oil Prices (1988 \$)</u>	<u>Low</u>	<u>Mid</u>	<u>High</u>
1995	\$16.70	\$20.60	\$24.40
2000	21.70	28.00	35.00
2005	24.80	33.40	42.00
2010	26.70	37.20	47.80
<u>Discount Rate</u>	10%*	10%*	10%*
<u>15 Year Probability of Major Disruption</u>	7%	12%	17%
<u>Feedback (GNP) Elasticity</u>	-.02	-.025	-.04
<u>Fill Rate</u>	75,000 B/D**	75,000 B/D**	75,000 B/D**
<u>Foreign Stock Draws (MMB/D)</u>			
1995	1.0	2.0	2.5
2000	2.0	3.0	3.5
2005	2.0	3.0	3.5
2010	2.0	3.0	3.5
<u>Excess Production Capacity (MMB/D)</u>			
1995	3.0	6.0	6.0
2000	2.0	5.0	5.0
2005	1.5	4.0	4.5
2010	0.5	3.0	4.0
<u>Fuel Switching All Years</u>	0.35	0.35	0.35

* Unless specified otherwise, each case assumes a 10% discount rate.

** Unless specified otherwise, each case assumes an SPR fill rate of 75,000 B/D.

Henson Moore: 750 MB / 3.5 MB / w/b
Negotiate leases w/ govt

Borkin 600: cost-benefit neg.

Scowcroft Deterrence value not incl. in cost-ben.

Darmak: 750 MB in budget @ printer

Analyses no good; Schultz / Nixon study @ 3.25 / B
Should be willing to neg. more favorable terms
need methodological study of terms, etc. that make sense
Suggest internal clearance process for negotiated deal
Ford admin - early neg. of one draft; NSC monitored

1/19

5PM

Dr. Ratchford,

This paper for upcoming EPC meeting
on Tues., 1/23 at 1:30P came over a
few minutes ago.

DAB has a meeting w/Sununu at that time,
in case you wished to cover this EPC
for him (presuming, hopefully, that that
can be the drill from now on!)

Sally

CABINET AFFAIRS STAFFING MEMORANDUM

Subject: January 23 Economic Policy Council meeting:

[illegible]

RETURN TO:

☐ Associate Director
Office of Cabinet Affairs
456-2800
(Room 235, OEOP)

THE WHITE HOUSE
WASHINGTON

January 19, 1990

MEMORANDUM FOR THE ECONOMIC POLICY COUNCIL

FROM: LEHMANN LI 
SUBJECT: Economic Policy Council Meeting on January 23

The Economic Policy Council will meet at 1:30 pm on Tuesday, January 23. The EPC will meet in the Roosevelt Room.

The EPC will review the Strategic Petroleum Reserve (SPR). By February 1, the Secretary of Energy must transmit a report to the Congress on alternative means of financing the SPR. An interagency group chaired by DOE has reviewed both the appropriate size of the SPR and alternative means of financing the SPR. DOE, in coordination with other departments and agencies, has prepared the attached paper for review by the EPC.

STRATEGIC PETROLEUM RESERVE OPTION PAPER

- ISSUES:
1. Should the U.S. Strategic Petroleum Reserve (SPR) be expanded from its currently authorized level of 750 million barrels?
 2. Should SPR expansion be financed by other than direct appropriations?

INTRODUCTION:

Public Law No. 101-46 extended Title I of the Energy Policy and Conservation Act (EPCA) through April 1, 1990, and required the Secretary of Energy to transmit to Congress by February 1, 1990, a report on alternative means of financing the SPR. The financing question was raised in the context of Congressional sentiment to expand the SPR to 1 billion barrels. In signing P.L. 101-46, the President said that the nine-month extension "allows sufficient time for the Administration to complete an interagency study of the SPR's size." Studies of SPR size and financing alternatives have been completed, and reports of findings are being made ready for transmittal to Congress on February 1, 1990. The reports contain no recommendations.

BACKGROUND

The SPR was first authorized in 1975 at a minimum size of 500 million barrels and a maximum of 1 billion barrels. The Ford Administration chose the minimum size in 1976 and the Carter Administration chose the maximum size in 1977. Reagan Administration studies in 1982 and 1986 adopted the mid-point of 750 MMB by weighing cost, risk, and activities of other consumer nations in developing similar reserves. In 1987, a DOE report to the President on Energy Security reaffirmed a 750 MMB reserve on the basis of assessments of energy markets and risks at that time. In 1988 a contracted study recommended a 1 billion barrel reserve based on an arguable set of assumptions, e.g. an 80 percent likelihood of a significant oil shortage in the near to mid-term. Congress is aware of all these studies, which will condition their views of the current one.

Congressional concern over SPR size is based in part on growing U.S. oil imports as a percent of demand. In 1987, net oil imports represented less than 40 percent of total demand. Current imports represent over 40 percent and are projected to comprise 50 percent by 1995.

The Bush Administration policy has been to complete a 750 million barrel SPR by the mid 1990's. For FY 90, the President proposed a fill rate of 75,000 barrels per day, which is also the statutory minimum fill rate. However, Congress provided funds for approximately 40 mb/d. SPR inventory is projected to be 591 MMB by the end of FY 1990. For FY 1991, the President's budget assumes a 750 million barrel SPR and a fill rate of 59 MB/D in FY 91 and of 50 MB/D in FY 92-95. Under the FY 91 projections, the 750 MMB inventory would be completed in 1999. If this size were increased to 1 billion barrels by 2005, the fill rate would have to be raised to 75 mb/d and the President's budget would have to be amended.

The current SPR provides substantial protection against temporary supply interruptions, but the cost has also been substantial. The per barrel budget outlay cost of SPR oil currently in inventory is \$27. When the cost of storage facilities and treasury borrowing costs are factored in, the total Federal financial costs are estimated at \$56 per barrel. World oil prices are about \$20 per barrel, or less than one-half the cost of SPR acquisition and management.

The development of large and readily available petroleum stocks, as provided through the Strategic Petroleum Reserve (SPR), represents the cornerstone of U.S. policy to mitigate the economic losses from a major supply disruption. Economic assessments and analyses have documented the contribution in reduced wealth transfers to foreigners (terms of trade) and lower GNP losses from timely drawdown of petroleum stocks during a supply crisis.

These economic studies are helpful in guiding policy toward a range of appropriate sizes as well as acquisition and drawdown strategies. However, economic considerations alone are not sufficient for making a judgment on SPR size. SPR size also has widespread strategic implications affecting the full range of alternatives available to the Administration for implementing energy security, foreign affairs, and national security policies. In addition to the economic criteria, these strategic considerations must be evaluated when addressing the issue of SPR size.

OIL SUPPLY INTERRUPTIONS AND THE STRATEGIC PETROLEUM RESERVE

Since 1950, there have been 13 oil supply interruptions equal to 1 percent or more of free-world oil consumption. All were accommodated in varying degrees by surge production from excess capacity, higher prices, and commercial inventories. The oil supply disruptions of the 1970s prompted nations to begin holding strategic stocks. The rationale for importing countries holding stocks and releasing them is that, in a temporary disruption,

such stocks could hold down much of the rise in oil prices, and as a consequence, prevent some of the costly economic dislocations caused by temporarily high oil prices. Importing countries recognize that such stocks could not ameliorate severe interruptions of a more permanent nature. IEA member nations reached agreement in 1974 on an International Energy Program which mandates stock levels (comprising strategic stocks, and privately held inventories) equivalent to 90 days of the previous year's net imports.

Because the price of oil in any one country is related directly to the price of oil on the world market, all net importing countries would benefit from lower oil prices resulting from any country releasing stocks during a disruption. Given this interdependence and the high cost of strategic oil reserves, it is reasonable to expect that all major importing countries share equitably the stockpiling burden.

U.S. imports equal about one-third of total IEA imports. But, in terms of national consumption, the U.S. is substantially less reliant on imports than other major oil consuming nations. Nevertheless, the U.S. currently has nearly 60 percent of total IEA government-owned oil stockpiles; about twice the level of government-owned stock protection as Japan (in terms of days of net imports coverage); and about three times that of OECD Europe.

Today we are better prepared to deal with an oil supply interruption today than we were in 1979. The major reasons are a larger, more effective strategic stock program in IEA member States and larger unused excess world oil production capacity. At the end of 1978 IEA member countries held about 275 million barrels of strategic government owned or controlled stocks. At the end of 1989 these stocks were nearly 1 billion barrels. IEA member countries have the capability to draw down strategic stocks at the rate of 4 to 5 MBD for six months. At the outset of the Iran Revolution in late 1978 unused world oil production capacity was 2 to 3 million barrels per day compared to a 1990 estimate of 5 to 6 MBD. Thus there are 9 to 11 MBD of oil supplies that potentially could be added to world oil supplies in the event of an interruption. The actual amount of oil that would be available during a disruption is uncertain because much of the unused production capacity resides in Persian Gulf countries, and because consuming countries draw-down policies will depend on actual or perceived political/economic developments at the time of the interruption.

While substantial protection exists today, the size study focused on the period 1995 to 2020; a period when most energy forecasters project rising imports for the U.S., Europe, Japan, and Third World countries, from OPEC and, more specifically,

Persian Gulf producers. In addition, excess production capacity is projected to decline during this period. The results of the study are summarized below.

SPR SIZE STUDY FINDINGS

An interagency study group chaired by DOE with representatives from Treasury, State, Defense, CIA, CEA, Interior, and OMB, analyzed the economic benefits and cost of two SPR size increments: 600 to 750 MMB, and 750 MMB to 1 billion barrels. The study concentrated on severe oil supply disruptions involving sharp reductions in world oil production that were 2 to 4 times larger than the largest 1970s interruption. The disruption sizes and probability of occurrence of these scenarios were supplied by CIA. The key findings of the study are:

- o Using mid-range assumptions, the expected present value costs of moving from 600 to 750 MMB would be \$1.99B, while the present value of the benefits would be \$0.94B; that is, costs exceed benefits by 2 to 1. The present value costs of moving from 750 to 1,000 MMB, would be \$3.37B, with benefits of \$0.75 and a cost/benefit ratio 4.5 to 1. Using a range of values for each individual assumption, the study found that net benefits for this "mid-range" case remained negative.
- o Sensitivity analyses combining plausible low and high value assumptions agreed on by the Working Group indicated that the 600 to 750 MMB generated positive net benefits in a number of cases; the 750 to 1000 MMB increment yielded benefits in only a small number of sensitivity cases.
- o The current size of the SPR (about 600 million barrels) and the current Administration goal (750 million barrels) provide substantial protection even though imports levels are projected to exceed 10 MMB/D by 2000.
- o If a very severe disruption occurs with a 750 MMB SPR, then avoided economic costs significantly outweigh the incurred costs. The increment of protection provided by the 750 MMB versus the 1 billion SPR amounts to a \$7.00/barrel difference in oil price throughout a six month worst case interruption, or about \$37 billion in avoided economic costs.

Any study that attempts to project 30 years into the future deals with extraordinary uncertainty. Sensitivity analyses of economic factors were done to address this issue, but world events and reactions can differ markedly from projected behavior.

Moreover, non-economic factors are highly relevant to policy decisions on SPR size.

The SPR size study considered non-economic factors. These involve broader issues of the strategic importance and insurance value of the SPR to the United States. A number of prior studies, some classified, have addressed these other considerations. The results of these studies have been incorporated in the current effort. Key aspects are summarized below.

Deterrence: The SPR, and stocks held by European nations and Japan, are a credible deterrent against politically motivated embargoes such as the one of 1973/74. The 1973 embargo resulted in production cutbacks of 1.6 million b/d for five months, or 240 million barrels of oil.

Current OPEC policy is to maintain and increase world oil market share. Disruptions in supplies and sharp increases in price induce conservation, cause switching to other fuels, and spur increased production in other world regions, resulting in market share losses for OPEC and revenue losses for its members. Furthermore, new OPEC investments in refining/distribution systems in consuming countries would be adversely affected by embargoes.

Alternative Financing Mechanisms: This size study does not assume the use of alternative financing mechanisms. If the cost of SPR oil acquisition could be reduced, clearly the cost benefit analysis would change. Depending upon the kind of alternative financing employed, the less quantifiable benefits associated with a larger SPR could also change. If, for example, a major producer leased oil to the U.S., that producer would be less likely to take action that would trigger the use of the leased stocks.

National Security: The SPR contributes to U.S. energy security and, by extension, to U.S. policy independence. While not a military reserve, the SPR contributes directly to the President's command flexibility by holding oil that can fuel the exercise of military options. During peace time, the U.S. military uses between 2 and 3 percent of annual domestic petroleum product consumption, mostly jet fuel. In a major conventional war, oil products such as jet fuel become critical, and consumption would likely be double or triple peace time rates. But even such higher rates would represent a relatively small proportion of total U.S. consumption. During war, direct military needs would have top priority for available energy supplies, with indirect (industrial) military needs as the next priority, followed by essential civilian services. Excluding consideration of the

Naval Petroleum Reserves for purposes of this analysis, in the event of war, drawdown of the SPR could be substantially higher than any surge in military-related petroleum demand. Furthermore, war reserve fuel stocks are strategically placed overseas, and cooperative agreements with host nations help in meeting demand, as needed.

Issue I: What Should be the Administration's SPR Size Goal?

Option 1: Fill the SPR to 600 MMB

Advantages:

- o Saves about \$3.5 billion in budget costs or about \$500 million annually compared with filling to 750 MMB.
- o In concert with West German and Japanese strategic stocks and safety stocks, and projected excess capacity, the 600 MMB SPR provides substantial protection to deal with large interruptions, and provides ample deterrence against any political embargo like the 1973/74 disruption.
- o Is justifiable on purely economic grounds.
- o Preserves the option to fill to 750 million barrels because the investment in facilities is nearly complete.

Disadvantages:

- o If a worst case interruption occurs, U.S. economic losses would be higher by \$24.1 billion compared to a 750 million SPR, and \$61.3 billion compared to a 1 billion SPR.
- o Would be opposed by members of Congress who advocate greater U.S. energy security, because it does not respond to growing U.S. import dependence.
- o Would provide less deterrence against multi-lateral, politically inspired disruptions imposed by producing governments, than would a larger SPR.
- o Could be perceived as diluting U.S. attempts to encourage other IEA members to increase strategic stocks. (In the May 1989 IEA Ministerial, Secretary Watkins reaffirmed U.S. commitments to a 750 MMB SPR, and the use of strategic stocks as the best early response to supply interruptions.)

Option 2: Retain the Current Goal of Filling the SPR to 750 MMB

Advantages:

- o Of the two size increments evaluated, the 600-750 MMB increment generates the least negative cost/benefit results.
- o Provides an additional margin of safety in the event of a worst case disruption.
- o Retains commitment made to U.S. allies.
- o Consistent with the President's FY 1991 budget and the existing Administration position on SPR size.

Disadvantages:

- o Under mid-range economic assumptions, the 600-to-700 million increment yields a net cost over benefit of \$1.0 billion.
- o To increase the SPR from 600 to 750 MMB will require budget outlays of \$3.5 billion.
- o Results in the United States holding a larger relative share of strategic stocks than other major importing countries.

Option 3: Increase the SPR from 750 MMB to 1 Billion Barrels.

Advantages:

- o Provides a further margin of safety.
- o Addresses concerns about increased energy security and rising U.S. oil imports.

Disadvantages:

- o The expected net benefits of increasing the SPR from 750 MMB to 1 billion barrels, in the mid-case scenario, are strongly negative. Costs exceed benefits by a ratio of 4.5 to 1.
- o Increases budget costs by nearly \$12 billion (over the 750 MMB SPR) and would require changes to the President's FY 1991 budget if this target is to be achieved this century.

- o A 1 billion barrel SPR could provide disincentives for any oil importing countries to increase strategic stocks.

Budget Levels/Costs for SPR Size Options*
(Change from FY-91 Budget in Millions)

		FY-91	FY-92	FY-93	FY-94	FY-95	Total for Option
Option 1 (600 MMB)	BA	- 228	- 363	- 376	- 389	- 402	
	O	- 379	- 368	- 375	- 388	- 401	
Option 2 (750 MMB)	BA	0	0	0	0	0	
	O	0	0	0	0	0	
Option 3 (1,000 MMB)	BA	+ 180	+ 190	+ 373	+ 932	+ 544	
	O	+ 150	+ 182	+ 350	+ 758	+ 653	

* FY 91 budget estimates, which are approximately in line with low case presented in SPR Financing Study

II. STRATEGIC PETROLEUM RESERVE FINANCE OPTIONS

INTRODUCTION:

The study of SPR financing alternatives was carried out through an interagency process parallel to, and involving the same agencies that participated in, the SPR size study.

The study analyzed the circumstances under which leasing would have costs equivalent to less than those of outright purchase. The term leasing was interpreted to cover a broad class of contract structures, including some which could also be called options. Under an oil lease, the Government would obtain control, but not necessarily ownership, of the oil delivered to the SPR. The Government would reserve to itself certain choices regarding the disposition of the oil at the time of lease maturity or of an SPR drawdown. For example, the Government might reserve the options to buy the oil or to cause the oil to be sold during a drawdown. The study identified many lease provisions that would need to be carefully structured to ensure that the President's flexibility in an emergency would be maintained.

The study analyzes a wide range of financing options in addition to direct appropriations and oil leasing. These include a revolving fund created from NPR receipts, oil-denominated bonds, fees and charges, and mandatory private sector storage. All of these options present policy or technical problems that discourage further consideration.

The SPR financing policy alternatives under active consideration contemplate authorizing, rather than requiring, the leasing method. Study results indicate that leasing of SPR oil through competitive commercial arrangements is unlikely to result in contract terms favorable to the U.S. Government. Any favorable lease arrangement is likely to involve a government-to-government agreement with a leading oil producing country.

Issue: What should be the Administration's position on financing additional SPR development?

Background

Direct appropriations to expand the SPR from 600 MMB to one billion barrels are estimated to be approximately \$19 billion, including over \$6 billion in the next six years, to achieve the current 750 MMB target. These sums are exclusive of Treasury's cost of borrowing, which is recorded on budget as interest on the public debt.

Oil Leasing

Leasing oil for the SPR would be a viable alternative to the extent that its cost would be less than the cost of direct purchase. The private sector's cost of capital is higher than Treasury's, but some producing countries have surplus capacity and geo-political interests which may permit the lease of oil to the SPR at lower than commercial rates. New legislation would be required to permit DOE to pursue this alternative.

For purposes of the study, DOE developed a "lease/option" approach with the following principal features:

- o Term: 10 years.
- o Minimum Transaction Size: 5 million barrels.
- o Minimum delivery period: 1 year, with semiannual solicitations.
- o The lessor's capital recovery after disruption and drawdown, or at the end of the lease term, would be at the "option" of the government, including (1) a return of "wet barrels," (2) payment based on prevailing market prices, (3) payment with a 5% or 10% cap on compound price appreciation, and (4) extension or renewal of the lease.
- o Provisions for monetary adjustments to reflect the likelihood that the lessor would not receive a quantity or quality of oil identical to that originally delivered.
- o Exemptions from certain environmental, tax and ancillary regulatory requirements and costs (most prominently the Cargo Preference Act, which requires 50 percent U.S.-flag shipping for government purchases) that could raise costs to the lessor above those obtained in a strictly private transaction.

This model was then subjected to break-even analyses under various assumptions. The issue is: What lease payments would make the government indifferent on the choice between leasing and purchasing? The effort underscored how sensitive conclusions can be to the assumptions. The analytical results do not demonstrate that leasing, in general, will provide cost savings to the Government.

Options

Option 1. Direct Appropriations: Retain current policy of direct Federal acquisition of storage facilities and oil through normal budget process.

Advantages

- o No alternative to Treasury financing has been demonstrated to be a lower cost method of financing SPR.
- o Maintains full federal ownership of SPR assets.
- o Current method provides direct annual budget control and uses existing tax collection and borrowing systems.

Disadvantages

- o Current budget levels (about 50,000 B/D), if maintained, would achieve the 750 MMB target in 1999. If approved, a 1 billion target would not be reached until after 2013.

Option 2a. Competitive Lease: Seek authority for competitively bid contracts for oil leasing.

Advantages

- o Government gains control over oil without financing full ownership. Ownership risk/reward stays in private sector.
- o Less foreign policy impact than Option 2b.
- o Would be in line with growing private market for oil swaps and other financial instruments.

Disadvantages

- o Would likely be more expensive than direct purchase.
- o Producer countries which would be in the best position to respond, such as major Persian Gulf producers, are unlikely to participate in a public competition.
- o Public solicitations would limit lease design options.
- o Would likely require a large number of separate leases, with attendant complexity at time of SPR drawdown.

Option 2b: Negotiated Lease. Seek discretionary authority for oil leasing (including comparable legal arrangements such as options for purchase) and pursue bilateral negotiations with one or more major producing nations.

Advantages

- o Offers potential for financing increased strategic protection at present values lower than direct purchase.
- o Leasing from (or a comparable arrangement with) a major producer could result in incremental oil production.
- o Leasing from a major producer could create a strategic relationship that would promote energy market stability.
- o Near-term outlays could be reduced in comparison to direct purchase, but leasing would still require advance appropriations.

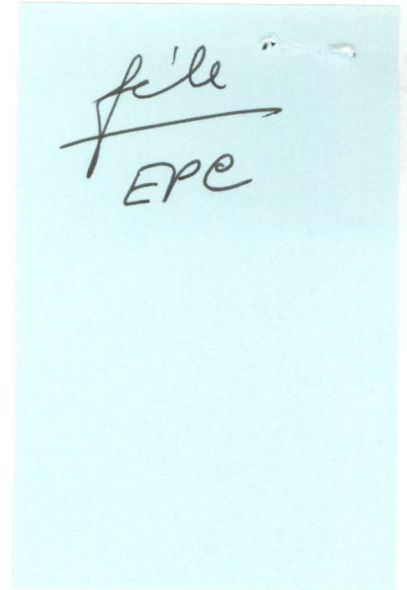
Disadvantages

- o The government's ability to negotiate mutually satisfactory lease terms is highly uncertain, and failure could prove both frustrating and politically embarrassing to both sides.
- o Lack of competition would be troublesome when negotiating hard-to-price security arrangements.
- o Leasing requires new legislation, and a coordinated U.S. position that such a relationship with a major producer is desirable, or at least not objectionable.
- o U.S. oil producers may object to a "sole source" negotiated deal with foreign producers.

THE WHITE HOUSE
WASHINGTON

January 24, 1990

EPC Meeting



AGENDA

1. Structural Impediments Initiative

*Kemp discussion re fundamental
assumptions*

THE WHITE HOUSE
WASHINGTON

January 26, 1990

EPC Meeting

FILE
EPC

AGENDA

1. 1990 Farm Bill - make it fit:

budget realities
Livingston Round (new)

Env. Issue - Reilly - Groundwater

Mandatory soil testing - no

Reduce Nitrogen by 1/3

Sustainable Ag.

CRP - wetlands

\$1.5 B over 5 yrs

DD - reopen budget procedurally ridiculous;
→ 40 million acres 34 → 37 → 40

Restoration of wetlands - compensated
- BA.

| Deland
Reilly

THE WHITE HOUSE
WASHINGTON

January 19, 1990

EPC Meeting

AGENDA

1. Joint Production Ventures
2. *Moynihan initiative*

File
EPC

THE SOCIAL SECURITY INTEGRITY AND DEBT REDUCTION ACT

Background

- The bipartisan Social Security Amendments of 1983, following the report of the National Commission on Social Security Reform, provided for a build-up of reserves in the trust fund to finance the benefits of the "baby boom" generation (today's workers).
- The reserves are invested in special Treasury securities as has been the case since the beginning of social security 50 years ago.
- As long as the rest of the budget is in deficit, the social security surpluses are financing the deficit. In that sense, they are paying for other non-Social Security spending. This was not the intention of the bipartisan Social Security rescue. The intention was to assure that social security benefits for today's workers could be paid in the future.

The Solution

For the protection of today's workers who will be retiring in the next century, it is necessary to continue to build up the social security reserves. The financing burden when today's workers retire will be manageable if the Government moves now to balance the budget and then starts paying down the huge national debt. This would help to improve the productivity and growth of the economy; and make it easier to pay the benefits when the big bulge of retirements occurs. The Government would have no other debt outstanding at that time, and its interest burden would be far lower. The key is to assure that Social Security operating surpluses are not spent on other purposes -- but rather are used to buy down debt.

The Social Security Integrity and Debt Reduction Act meets this test. It has these features:

- The Gramm-Rudman-Hollings deficit target of zero is extended permanently past its present expiration in 1993.
- The existing Social Security Trust Fund is allowed to continue to build up reserves -- on a basis that protects them.
- A new Social Security Integrity and Debt Reduction Fund is created in the Treasury. With a three-year phase-in starting in 1993, an outlay will be made into this fund each year from the general fund. That outlay will be equal to the projected social security surplus for that year. The budget will have to be balanced including this outlay.
- The new fund must use its receipts immediately (as they are received) to retire national debt held by the public.

The Practical Benefits

- The social security trust fund reserves are protected and continue to build up for future retirees, which would not be the case under proposals to reduce the payroll tax.
- The unified budget is preserved. Social security is not removed from the budget and the deficit calculations. This avoids the danger that Congress could spend the large surpluses without being subject to budget discipline.
NOTE: Any approach which removes social security from Gramm-Rudman risks spending the reserves that it ostensibly intends to protect.
- The budget would be balanced as a regular requirement. There would not be the temptation to spend "surpluses."
- The annual burden of paying interest on the debt, now about \$175 billion, would be reduced in the years ahead, ultimately to zero.
- The reduction of the national debt would be the equivalent of an increase in national saving. This would help to lower interest rates, increase investment and productivity, and lead to a higher growth rate for the economy.
- The political system would:
 - o not give up on funding the retirement benefits of today's workers;
 - o not give up on reducing the deficit; and
 - o not be forced to raise taxes or cut benefits.

TALKING POINTS RE:
MOYNIHAN'S SOCIAL SECURITY PLOY

- (1) In an ideal world, we would all love to be able to cut Social Security taxes without any cost.
- (2) Unfortunately, if we do cut Social Security receipts, we will short-change the very people we want to help: today's workers. We would undo the bipartisan Social Security rescue that was enacted in 1983.
- (3) In the long term, as a practical matter, the Moynihan plan would have to mean a major cut in Social Security benefits. (If reserves are not built up, they will not be there when baby-boomers retire -- and the tax burden on future workers would be prohibitive.)
- (4) To make sure the reserves are there, the Administration is proposing a new "Social Security Integrity and Debt Reduction Fund." (Legislation available in late January.)
- (5) In the near term -- as Moynihan himself acknowledges -- his plan would cost \$55 billion in FY '91 alone. (That's the coming budget year.) That \$55 billion revenue loss would have to mean one of three things:
 - (a) abandon the G-R-H targets and abandon any serious interest in deficit reduction; or
 - (b) cut benefits; or
 - (c) raise taxes. (Whose? Where does one find \$55 billion without hitting the average taxpayer?)
- (6) Moynihan, in fact, knows much of this. His plan is not serious. It is a political ploy.

1/18

Dr. Ratchford,

We rec'd. this paper for an EPC meeting tomorrow, although we had been advised that it is principals only and that since DAB is out of town, our agency would not have representation.

FYI,

Undersees

SS

THE WHITE HOUSE
WASHINGTON

CABINET AFFAIRS STAFFING MEMORANDUM

Date: 1/17/90 Number: _____ Due By: _____

Subject: January 19 Economic Policy Council meeting:

Joint production ventures

ALL CABINET MEMBERS	Action	FYI		Action	FYI
Vice President	☒	☐	CEA	☒	☐
State	☒	☐	CEQ	☐	☐
Treasury	☒	☐	OSTP	☒	☐
Defense	☐	☐	_____	☐	☐
Justice	☒	☐	_____	☐	☐
Interior	☐	☐	_____	☐	☐
Agriculture	☒	☐	_____	☐	☐
Commerce	☒	☐	Scowcroft	☐	☐
Labor	☒	☐	Porter	☐	☐
HHS	☒	☐	Breiden	☐	☐
HUD	☒	☐	Cicconi (For WH Staffing)	☒	☐
Transportation	☒	☐	_____	☐	☐
Energy	☐	☐	_____	☐	☐
Education	☐	☐	_____	☐	☐
Veterans	☐	☐	_____	☐	☐
OMB	☒	☐	_____	☐	☐
USTR	☒	☐	_____	☐	☐
Chief of Staff	☒	☐	Executive Secretary for:		
UN	☐	☐	DPC	☐	☐
CIA	☐	☐	EPC	☐	☐
National Drug Policy	☐	☐	_____	☐	☐
EPA	☐	☐	_____	☐	☐
GSA	☐	☐	_____	☐	☐
NASA	☐	☐	_____	☐	☐
OPM	☐	☐	_____	☐	☐
National Science Foundation	☐	☐	_____	☐	☐
SBA	☐	☐	_____	☐	☐

REMARKS:

RETURN TO:

☐ David Q. Bates
Cabinet Secretary
456-2174
(1st Floor, West Wing)

☐ Associate Director
Office of Cabinet Affairs
456-2800
(Room 235, OEOB)

THE WHITE HOUSE
WASHINGTON

January 17, 1990

MEMORANDUM FOR THE ECONOMIC POLICY COUNCIL

FROM:

LEHMANN LI 

SUBJECT:

Economic Policy Council Meeting on January 19

The Economic Policy Council will meet at 10:00 am on Friday, January 19. The EPC will meet in the Roosevelt Room.

The EPC will review the issue of joint production ventures. There are several legislative proposals to amend the antitrust laws regarding joint production ventures. The Justice Department, in coordination with other departments and agencies, has prepared the attached paper for review by the EPC.

Pro-competitiveness initiative

All-union position

Bi-partisan appeal

JS: no incentives?

neutral w/ respect to foreign firms

Treas: ~~industrial~~ Industrial policy abhorrent

Pos: Kin + de trebling good

- Head off something worse? send wrong signal?

JS - Deregulating; untying; avoids proactive ind. policy

No preferred industry; size (must meet "rule of reason")

Retraactive review/interdiction

Review process - becomes mini-industrial policy?

Rules + regs become vehicle for mischief

Roger Porter - Balance bet. "rule of reason" and notification good

Packaging - include w/ other elements of anti-trust or put up alone

Boskin - assurance on intro. we are not doing other ind. pol. things

Nick - go as competitiveness bill, not anti-trust

JS - present after state of union

Damon - unload @ state of union - inventing in future

Joint Production Venture Legislation

I. Overview of Options

This memorandum presents the two final options concerning the Administration's position on proposed legislation affecting joint production ventures ("JPV's"):

- ° Preserve the status quo
- ° Support proposed legislation modeled after the National Cooperative Research Act ("NCRA"), whereby courts would be required to analyze JPV's under a "rule of reason", and--for JPV's filing a disclosure notice--any antitrust damage recovery would be limited to actual, rather than treble, damages. Oppose legislation that goes any further in relaxing antitrust treatment of JPV's, or that otherwise promotes, regulates or finances JPV's.

These options stand in contrast to the now rejected option to support the pending "National Cooperative and Commercialization Act of 1989" (H.R. 1024), introduced by Congressmen Boucher and Campbell. This proposed legislation, modeled after the certification procedure of the Export Trading Company Act of 1982, would largely immunize JPV's from antitrust liability after they received certification from the government. This proposal has been rejected on the grounds that conferral of immunity goes too far in relaxing antitrust treatment of JPV's, and that the certification process would create an overly intrusive and costly role for the federal government in regulating JPV's.

II. Background

A. Support for Promotion of Joint Production Ventures

Some members of Congress, some parts of American industry (most notably the electronics industry) and others have expressed interest in enhancing the willingness and ability of U.S. firms to enter into joint production ventures with one another. Interest in JPV's is based on the belief that they have the potential to improve the competitiveness of U.S. firms, particularly in global markets. However, it has been argued that the formation of JPV's has been impeded by a fear of exposure to antitrust liability.

Several varying proposals have been made to reduce antitrust uncertainty by extending the coverage of the NCRA to JPV's. (Simple extension of NCRA coverage would mandate antitrust analysis under the rule of reason and limit potential damage liability of JPV's that are disclosed to the antitrust enforcement agencies and in general terms to the public to actual damages rather than treble damages.)

- In the House, H.R. 2264, introduced by Mr. Fish, would simply extend the NCRA to joint production and manufacturing. H.R. 2025, introduced by Mr. Edwards, would also extend the NCRA to joint marketing.
- In the Senate, S. 1006, introduced by Senators Leahy and Thurmond, would simply extend the NCRA to joint manufacturing and processing. Senator Biden is apparently considering a possible proposal to extend the NCRA to joint manufacturing of products developed either jointly or individually; this proposal also would further limit potential damage liability with a restrictive statute of limitations for the filing of damage actions. One title of a proposed "Republican Competitiveness Initiative" drafted by Senators Danforth, Chafee, Domenici, and Kasten would extend the NCRA to joint manufacturing or processing and create a separate new scheme for government approval of "cooperative innovation arrangements" that could extend to joint manufacturing and marketing; approval would insulate the parties from all antitrust damage remedies.

While these proposed bills do not distinguish between JPV's among only U.S. firms and those with foreign participation, an issue voiced in Congress is whether encouragement should be offered to JPV's that include foreign firms.

The Secretary of Commerce has testified before the House Judiciary Committee as to the need for legislation facilitating the formation of JPV's, and the Attorney General has noted that JPV's may enhance American competitiveness. The Department of Justice's recognition of the potential benefits of JPV's is also evident in the promulgation of its 1988 International Guidelines, which give favorable treatment to the formation of procompetitive JPV's involving U.S. firms.

The House and Senate Judiciary Committees have called on the Administration to state its position with respect to JPV legislation currently under consideration.

B. The Nature of Joint Production Ventures

JPV's take many forms. Their chief common characteristic is that they have the ability to produce goods or services separately from their parents. A JPV is considered "horizontal" if its activities relate to products over which its parents compete. It is "vertical" if its activities relate to products that its parents supply to one another. Some JPV's might have parents that together account for only a small share of the output in the market in which they compete, while others might constitute industry-wide consortia. A JPV might confine its activities to production, or it might conduct R&D or market its outputs as well.

C. The Benefits of Joint Production Ventures

JPV's may create substantial competitive benefits: the combined efforts of the parents may realize economies of scale and scope, maximum use of complementary skills and facilities, the effective use of joint R&D, and sharing of investment risks requiring close management. Of course, the joint venture form of organization may create its own business problems, impede decision-making due to disparate objectives and opinions of the possible venturers, and be viewed as unnecessary for raising sufficient investment capital. For example, while Gordon Moore, the Chairman of Intel Corp, told a House panel that the risk of investing the needed \$500 million - \$1 billion to produce 4 megabit DRAMs requires a joint venture of 20 to 30 U.S. companies, like the proposed U.S. Memories, Motorola alone spends \$1.75 billion annually on R&D and new facilities, and has announced plans to build its own \$250 million facility for the production of 4 megabit DRAMs.

As in other areas of business activity, disparate views of the effectiveness of JPV's are best resolved in the market, provided that the joint activities pose no risks to competition.

D. The Risks of Joint Production Ventures to Competition

The basic risk is that a JPV, like a merger, can reduce existing or potential competition in markets where the JPV operates, and, in some cases, in related markets. This is a problem common to mergers, JPV's and other contractual arrangements; however, antitrust analysis and enforcement generally are capable of discerning and discouraging anticompetitive transactions or arrangements.

In general, vertical JPV's pose less of a risk to competition than horizontal JPV's. Other factors affecting risk to competition are the shares of the relevant markets and assets held by the venturers, whether the scope of a joint venture includes both production and marketing, whether the joint venture agreement constrains independent actions by the venturers, and the extent to which the joint venture will have power over final prices.

E. Joint Production Ventures in the U.S., Japan and Europe

United States

JPV's are not rare in the U.S. economy. More than 50 new JPV's (formed by at least one U.S. firm and aimed at U.S. production) have been reported by the Wall Street Journal in each of the last few years. Corporate announcements demonstrate a decade-long trend in the distribution of JPV's away from the energy, chemicals, and metals industries, and towards high-technology industries, where they may provide such benefits as sharing the risk of large investments, synergistic combination of assets, and garnering of other efficiencies.

There is a basis for the view that businesses have been stimulated to form joint ventures by expressions of Administration and Congressional support. An analysis of the formation of joint ventures during the past decade shows an upsurge of joint ventures in 1983, just prior to the 1984 passage of the NCRA. An upsurge in JPV formation has been evident since 1988, when public requests for support of joint production ventures were acknowledged by Administration officials and bills introduced in Congress.

Examples of JPV's formed by leading firms, small firms, service providers, biotechnology innovators, heavy producers, electronics firms, pharmaceutical houses, etc., show that production joint venture activity is not confined to firms of any category of size or technology. Examples of joint ventures aimed at U.S. production by U.S. firms include Merck and Johnson & Johnson's venture to develop and market new over-the-counter medicines; Dow and Eli Lilly's venture to construct and operate an agricultural chemical concern; GE and Ford's venture to develop and produce a new generation of automobile lighting systems; Xerox and Dupont's venture to develop and produce new-technology copying equipment; IBM and Sears's venture to produce electronic information services; Corning Glass Works and Raychem's venture to make and market products for the high-density packaging of semiconductor devices; Collagen and Bristol-Myers' venture to make cell-growth regulators; CRS Serrine and John Mowlem & Co.'s venture for power-generating projects; Calgene and Campbell

Soup's venture to apply biotechnology to the production of better tomatoes; the venture between Chemfix Technologies and Air & Water Technologies Corp. to implement a new process to handle waste materials; the venture between Integrated Genetics and Amoco Corp. to supply DNA-probe tests; Wickes Manufacturing Co. and Acco Controls Group's venture to make auto control systems; Chronor Corp. and SeaWest Power Systems' venture to build a solar power station; the venture between Abitibi-Price Inc. and Parsons & Whittemore Inc. to build a newsprint mill; and Hewlett-Packard and Northern Telecom's venture to develop and market automated office equipment.

Japan

The available evidence suggests that joint ventures for production purposes are not a common form of business organization in Japan. However, joint ventures for cooperative research and development efforts are encouraged by the Japanese government. By and large, this interfirm cooperation ends at the research and development stage, with the participant firms producing independently.

When consolidation is desirable, it generally is achieved by mergers and acquisitions rather than by JPV's. This may be attributable to Japan's more lenient antitrust laws, which allow a broader scope of permanent restructuring than would be permitted under the U.S. antitrust laws.

Europe

Joint venture activity in the European Community seems to be of roughly the same order of magnitude as in the U.S. The "Report on Competition Policy" of the Commission of the European Communities counts 111 joint ventures of all kinds in 1987/1988, with 29% of those specified labeled as research and development cases. There was a trend in those years away from international joint ventures (involving at least one "extra-Community" firm) to joint ventures comprised of firms in EC member countries. Nonetheless, almost half of the international joint ventures involved U.S. firms.

III. The Current Treatment of Joint Production Ventures Under the Antitrust Laws

U.S. firms considering procompetitive JPV's should have nothing to fear from enforcement of the antitrust laws by the federal government. The Department of Justice has developed a rational and hospitable enforcement policy toward joint ventures of all types, which is founded on the rule of reason and articulated most recently in the Department's 1988 International Guidelines.

The antitrust rule of reason has been developed by the courts to assess the impact of business behavior on competition by weighing procompetitive efficiencies against anticompetitive risks. Under its guidelines, using a rule-of-reason analysis, the DOJ determines whether there is a significant probability that a joint venture would be able to exercise market power and raise prices to consumers. Anticompetitive potential from increases in market concentration that would be brought about by horizontal JPV's is weighed against offsetting factors, such as low entry barriers. Actual and potential foreign competition is recognized where it exists, and full account is taken of any procompetitive efficiencies. Ancillary restraints on independent actions of the venturers are analyzed under the rule of reason as well, with attention paid to their role in assuring the realization of the JPV's efficiencies.

Although DOJ's guidelines for JPV analysis reflect current law, antitrust uncertainty arises from the fact that there is relatively little current case law specifically evaluating JPV's. Moreover, some older Supreme Court precedents (e.g., Topco, 1972, and Sealy, 1967) have held restraints associated with joint ventures to be illegal per se. While some recent Supreme Court decisions (e.g., Sylvania, 1977 and Broadcast Music, 1979) seem to endorse wide application of the rule of reason, the older precedents have not been explicitly overruled.

The per se rule supported by the old precedents contrasts sharply with the rule of reason. Under the per se rule, JPV's could be enjoined, dissolved, or held liable for the payment of treble damages to injured private plaintiffs, without a weighing of factors such as procompetitive efficiencies, or a consideration of actual market power. According to a report by the ABA Section of Antitrust Law, the possibility of such liability continues to affect counselling on the formation of joint ventures.

The Hart-Scott-Rodino Act applies to the formation of many joint ventures in corporate form, and requires that venturers who meet prescribed thresholds file a specified notification with the Department of Justice and the FTC. The venturers must then wait a prescribed period before consummating the transaction, during which time the proposed JPV is analyzed for any potential anticompetitive effects. Significant joint ventures outside the purview of Hart-Scott-Rodino are likely to come to the attention of the antitrust enforcement agencies via public announcements of their formation, but the lack of prior notice in these cases can handicap enforcement efforts.

IV. Discussion of Options

- A. Support Legislation Amending the NCRA to Include JPV's, (But Excluding Joint Marketing) Thereby Assuring Rule-of-Reason Analysis and Allowing Limitation of Liability for Disclosed JPV's. Oppose legislation that goes any further in relaxing antitrust treatment of JPV's, or that otherwise promotes, regulates or finances JPV's.

PROS:

- ° The NCRA would require courts to analyze any challenged JPV under a rule-of-reason standard, thus avoiding deterrence of procompetitive JPV's by the risk of adverse per se treatment posed by outdated legal precedents.
- ° The NCRA's limitation of liability (for disclosed ventures) to actual, rather than treble, damages also would reduce possible antitrust exposure and discourage frivolous suits, thus removing a potential barrier to the formation of procompetitive JPV's.
- * Detrebling makes sense because it applies only to activities of a JPV that are publicly disclosed. The standard rationale for the trebling of damages is to counteract the probability that an illegal act will go undetected.
- ° The NCRA's public notification provision poses no undue burden, and makes injunctive relief possible for private parties as well as the government before substantial competitive harm occurs.
- * Federal publication of the notification would not confer antitrust exemption or official approval, and would not adversely affect the ability of the government or private parties to obtain effective relief where a JPV actually had anticompetitive effects.
- ° Some argue that support of an amendment to the NCRA would be a strong statement of the Administration's support of American efficiency and competitiveness, without suggesting a lack of commitment to vigorous antitrust enforcement.

CONS:

- ° Extension of NCRA coverage to JPV's is arguably unnecessary. Rule-of-reason analysis of joint ventures is already the policy of the antitrust enforcement agencies, and it already characterizes recent Supreme Court decisions. JPV's are not rare in the U.S., are no more prevalent in Europe, and are less prevalent in Japan.
- ° Attempted formations of anticompetitive JPV's might be stimulated by the removal of the threat of treble damage liability.
- ° Extension of NCRA coverage to JPV's places more of the burden of assessing their impact on the federal enforcement agencies, at a time when their resources are already stretched.
- ° Support of an NCRA amendment might mistakenly be construed as advocacy of antitrust laxity, and might make opposition to genuinely harmful Congressional proposals more difficult.
- * The Reagan Administration is said to have given assurances to Congress at the time of the passage of the NCRA that it would not lead to later efforts to expand its scope beyond research and development.

B. Preserve Status Quo -- Oppose Any Change in the Antitrust Statutes -- DOJ To Clarify and Publicize Enforcement Guidelines for JPV's as Appropriate

PROS:

- ° Avoids risks to competition that legislative diminution of antitrust remedies might entail.
- ° Arguably, no substantive change in antitrust law is necessary to encourage procompetitive production joint ventures.
- ° By opposing any diminution of antitrust remedies, the Administration would be perceived as being firm in its commitment to effective antitrust laws and their enforcement, and could most effectively avert any harmful JPV legislation.

° Clear articulation by DOJ of its rational policy towards JPV's would provide some incremental assistance to industry, the antitrust bar, and the courts in analyzing JPV's in a manner that promotes procompetitive ventures but guards against anticompetitive effects.

CONS:

° Rule of reason enforcement guidelines have been in place for years, they do not prevent the courts from employing per se rules, and they do not estop private treble damage actions whose threat may deter procompetitive joint ventures.

° Opposition to legislation could be viewed as insensitive to competitiveness concerns voiced on a bipartisan basis, and result in forfeit of a legislative leadership position.

° The statutory adoption of the rule of reason for JPV's is an unmitigated benefit: it establishes a standard of law that has been approved by the government, by the more discerning court decisions and by qualified commentators.

° The statutory adoption of actual rather than treble damages for disclosed JPV's arguably benefits both competition and enforcement: it encourages procompetitive JPV's by diminishing antitrust risks and sanctions, improves enforcement by creating incentives for disclosure of JPV's, and preserves treble damages for covert or clandestine anticompetitive conduct.