

Report to the Senior Executive Council, Department of Defense

FUEL HEDGING TASK GROUP

Report FY03-8

Recommendations related to the practical use of fuel hedging for the Department of Defense

FUEL HEDGING TASK GROUP REPORT

TASK: At the direction of the Under Secretary of Defense (Comptroller) (USD (C)), the Defense Business Board (formerly known as the Defense Business Practice Implementation Board) was tasked with examining potential ways to reduce the Department's exposure to fuel price volatility by hedging in commercial markets. This request was initiated by the USD(C) after the Office of Management and Budget (OMB) directed that the Department of Defense (DoD) consider fuel hedging. The recommendations of the Task Group were to focus on whether fuel hedging techniques employed in the private and public sectors could be applied by the Department to its benefit.

The Task Group was charged with providing the following specific deliverables:

- 1. Overview of the Department's fuel purchasing practices;
- 2. Overview of the Department's historical practices of fuel hedging;
- 3. Review of best practices and processes for effective fuel hedging;
- 4. Description of the fuel hedging options available to the Department of Defense;
- 5. Description of key risks and opportunities of a fuel hedging program;
- 6. A summary recommendation including identification of the significant management initiatives required for implementation and execution if applicable.
- DBB Task Group Chairman: Denis Bovin
- DoD Task Group Liaison: Tom Lavery, Revolving Funds Directorate, Office of the Under Secretary of Defense (Comptroller)
- DBB Task Group Members: Bob Hale and Michael Bayer
- Task Group Contributors: Elliott Etheredge (Bear Stearns), Shawn Anderson (Delta Airlines), Brad Berkson (Senior Executive Council), Don Peschka (Defense Energy Support Center (DESC)), Larry Ervin (DESC), Kathleen Murphy (DESC)
- DBB Task Group Executive Secretary: Thomas Modly (DBB Executive Director) and Ivan Thompson (DBB Deputy Director)

PROCESS: The Task Group initially gathered information on the Department's current fuel purchasing practices through discussions with the senior managers of the Defense Energy Services Center (DESC). DESC is responsible for most of DoD's fuel purchasing requirements. Further government insight on this topic, particularly regarding the adverse effects of fuel price fluctuations on the DoD budget execution process, was provided by the Under Secretary of Defense (Comptroller) and the Office of Management and Budget.

The Task Group garnered information on commercial fuel hedging practices through a series of briefings from leading firms engaged in hedging programs. These firms included actual bulk fuel purchasers as well as service providers who assist companies in managing their fuel purchasing requirements. The following companies provided valuable insight in this regard:

- Accenture
- BP Fuels
- Delta Air Lines
- McKinsey and Company
- Morgan Stanley
- Shell Trading

During the course of its work, the Task Group developed an understanding of the value of hedging to commercial companies and the prospective value of the practice for the Department of Defense. This value was then weighed against the potential costs of engaging in hedging practices from both an operational and political perspective. Initial findings of the Task Group were presented to the Board during its quarterly meeting on November 20, 2003. In response to those deliberations, the Task Group developed two recommendation options for further deliberation during the Board's quarterly meeting on January 14, 2004.

RESULTS: The Task Group concluded that commercial businesses, such as airlines and other transportation companies, whose expenditures for fuel represent a significant percentage of their operating costs, have engaged in fuel hedging strategies for some or all of the following reasons:

~ ~

- Mitigate cash flow volatility
- Insure against financial distress
- Reduce earnings volatility
- Minimize long-term fuel expense
- Facilitate improved management planning

• Create value through effective trading of fuels contracts

Although it does not share the same commercial motives for hedging as cited above, the Department of Defense is a large purchaser of fuel. Therefore it experiences adverse effects similar to those in private-sector companies when fuel prices change unexpectedly. The rationale for some type of hedging program to mitigate this exposure for DoD, therefore, can be summarized as follows:

- Reduce budgetary uncertainty
- Reduce disruptions to non-fuel programs caused by unanticipated requirements for funds to pay higher-than-expected fuel bills (since the opportunity cost of lost program dollars in a given year could be significant)
- Reduce potential political liability related to additional funding requests to cover higher-than-expected fuel prices

Recognizing these problems, the Office of Management and Budget (OMB) recommended that DoD engage in a pilot program to test the utility of hedging its fuel costs. While OMB recommended this approach, senior OMB analysts made clear during our discussions that the choice about whether or not to hedge should rest with the Department.

Summary Recommendations

The Board's Task Group concluded that DoD could feasibly hedge its fuel purchases. In particular, the Department could design an effective hedging program that does not disrupt commercial markets. Though DoD is a large consumer of fuels, its consumption does not exceed that of a major airline by a significant amount. While the commercial market for fuel and fuel contracts could handle a DoD fuel hedging program, the question remained: *Should DoD hedge?*

After an examination of the viability of a fuel hedging program for DoD, two recommendation options were developed by the Task Group:

OPTION 1: Don't Hedge OPTION 2: Implement a Low-Risk Pilot Program

The pros and cons of both options are detailed in Appendix A and were debated by the entire Board during its quarterly meeting on January 14, 2004. As a result of those deliberations, a variant of Option 2 received broad support as the

Board's consensus recommendation. Under this variant, DoD would not engage in hedging in commercial markets. However, the Department would recommend that OMB consider seeking legislative authority to engage in "non-market" hedging by entering into an agreement with the Department of Interior's Mineral Management Services group (MMS) to mutually offset dollar variances resulting from fuel price volatility.

As described in Appendix A (Option 2), MMS generates approximately \$4 billion per year in revenue by leasing both off-shore and on-shore energy resources. In the past, when fuel prices increased unexpectedly, MMS revenues grew while DoD costs also grew. When fuel prices fell unexpectedly, the opposite occurred. The Board believes that DoD should recommend that OMB seek legislative authority to transfer funds from Interior to Defense or vice versa depending on which Department benefits from unanticipated price changes. This could offset, at least partially, the growth in DoD costs. Such an approach would allow DoD to realize some of the benefits of fuel hedging while avoiding many of the potential adverse effects associated with hedging in commercial markets.

Respectfully submitted,

Denis A. Bovin

Attachment: Fuel Hedging Final Presentation

Defense Business Board

Appendix A: DoD Fuel Hedging Recommendations

OPTION 1: Don't Hedge

Under this option, the Department of Defense would not engage in fuel hedging in the commercial markets or elsewhere and would not pursue this approach any further. The option is based on the decision that both the political risks and the legislative effort required to establish such a program are not justified by the potential benefits. More specifically this option is consistent with several findings:

- DoD can cope with unanticipated fuel price increases without hedging:
 - As a whole, DoD is not highly exposed to fuel price volatility.
 Although DoD spent close to \$4 billion on fuel in FY03, fuel costs represents about 1% of the total DoD budget compared to 10% of the operating expenses of a typical major airline.
 - The largest unanticipated growth in fuel prices during the past ten years cost DoD \$1.7 billion. This is likely an extreme case, but still represents only about 0.5% of the DoD budget.
 - In response to fuel price increases, Congress always either has authorized supplemental funds or has funded the Working Capital Funds to cover price increases.
 - Price hedging does not protect against the negative impact demand volatility has on DoD's budget.
 - The DoD Comptroller told the Board's Task Group that, while unanticipated price increases are bothersome, from his standpoint DoD has been able to cope with them without major program disruptions.
- There is a dollar cost to hedging:
 - Administrative costs to manage a hedging program might amount to a few million dollars per year.
 - Transaction costs (that is, fees for hedging in commercial markets) could be in the tens of millions per year depending on the type of hedges in place and the level of risk mitigation.
 - During periods of rising fuel prices, a hedging program would save DoD money. Likewise, a hedging program would cost DoD money in a declining market. Over time, the total cost of a hedging program

would be roughly equivalent to that of an unhedged purchase program plus the administrative and transaction costs.

- There is a potential political cost to hedging:
 - Laws must be changed to give DoD authority to engage in price hedging through the use of non-physical futures and other financial instruments sold in commercial markets. Substantial political capital may be required to persuade Congress to authorize fuel hedging.
 - There is a risk of public criticism of DoD's use of hedging/derivative instruments. Comparisons to corporate misdeeds, unfair though they may be, are possible.

In sum, it may be difficult to justify the significant political effort associated with fuel hedging in the commercial markets. Under this option DoD should tell OMB that it does not want to pursue this approach.

OPTION 2: Implement a Low-Risk Pilot Program

Under this option the Department of Defense would initiate a small pilot program (limited to perhaps 10-20% of DoD's annual fuel purchases) to experiment with the concept of fuel hedging. Option 2 has a basic version and also a variant.

Basic Version. Under the basic version hedging would take place in commercial markets. Such an approach would be feasible and could be handled by the fuel markets regardless of the size of the pilot program. DoD buys about the same amount of fuel as a large airline and therefore, even if it hedged all its purchases, it would not overwhelm the commercial markets.

This basic version of Option 2 has several attractive features. DoD remains a very large consumer of fuel, the price of which may have unintended adverse consequences on other DoD programs in a given fiscal year – especially when volatility increases. It is also important to note that periods of critical fuel needs for the DoD tend to coincide with periods of rising fuel prices. A hedging program could reduce the total cost of fuel during these volatile periods.

Hedging in the commercial markets also would provide several other key benefits to the Department. Hedging would:

- Potentially eliminate the need to seek supplemental funding due to price fluctuations.
 - Supplemental funds are required when actual prices paid by DoD exceed those projected in the budget.
 - To the extent that a hedge can be executed that reflects the budgeted price, for a given quantity of fuel, there would be minimal price variation (depending on the degree of the hedge) and therefore no requirement for supplemental funding.
- Help insure that pricing projections in the budgeting process reflect market prices.
 - An effective hedging program would encourage the use of marketrelated fuel price projections in the budgeting process because the cost of hedging to secure a budgeted fuel price projection would be higher

when such projections deviate from what the market expects with regard to future oil prices.

- Hedging reduces the vulnerability to major market fluctuations and may minimize long-term fuel prices during some periods.
 - Since 1994, shocks to the world fuel market tend to have the effect of dramatically increasing, rather than decreasing, fuel prices.
 - This period has seen five major periods of fuel price volatility. Four of these resulted in increased fuel prices whereas only one resulted in reduced fuel prices.
 - Because fuel prices would be hedged, such periods of market volatility would sometimes result in lower average fuel prices to the DoD.
- Eliminates fuel prices as a concern for Defense Working Capital Fund management.
 - Hedging fuel purchases would provide a fixed cost for fuel which would eliminate the need to "shuffle" funds during periods of increasing fuel prices.

A small pilot program would still require that the Department secure enactment of enabling legislation. However, the small size of a pilot program would reduce political risks because gains and losses would be modest (minimizing any unfair comparisons with corporate irresponsibility). Additionally, DoD would gain experience through a pilot program that could be helpful in the event of a spike in price volatility or other factors that caused the Department to consider a larger program.

Variant. A particularly low risk pilot program would involve non-market hedging. OMB could seek legislative authority to engage in an "intergovernmental hedging" arrangement with DoD and the Department of Interior's Minerals Management Services (MMS). MMS generates approximately \$4 billion per year in revenue through leasing both off-shore and on-shore energy resources. Pricing for those resources fluctuate in direct proportion to indexed fuel prices. When fuel prices go up unexpectedly, MMS "makes" money and DoD "loses" money and vice versa. OMB could manage the hedge during budget execution by transferring funds between Interior and Defense during budget execution depending on which Department benefits from unanticipated price increases. This shift could at least partially offset the effects of unanticipated fuel price changes on both parties. The transfers should be done using a formula that is agreed to ahead of time, and made known to Congress, so that there is no possibility of using the hedging approach to change the real resources available to either Department.

This non-market hedging should allow DoD to realize many of the benefits of hedging noted above in connection with hedging in the commercial markets. At the same time, non-market hedging would avoid some of the disadvantages noted in Option 1. Specifically, this approach should involve none of the potential political embarrassment associated with comparisons to Enron and payment of hedging fees to commercial brokers. Nor would either department incur any transaction fees or other costs.

Under this variant of Option 2, DoD would recommend that OMB seek authority to engage in this non-market hedging.



Fuel Hedging

Final Report March 2004



DBB Task Group

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DoD Liaisons

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March 2004



Terms of Reference Objectives

- 1. Overview of the Department's fuel purchasing practices
- 2. Overview of the Department's historical practices of fuel hedging
- 3. Review of best practices and processes for effective fuel hedging
- 4. Description of the fuel hedging options available to the Department of Defense
- 5. Description of key risks and opportunities of a fuel hedging program
- 6. A summary recommendation including identification of the significant management initiatives required for implementation and execution if applicable.



Sources of Internal and External Expertise:

Department of Defense

- Defense Energy Support Center (DESC)
- Defense Working Capital Fund (DWCF)
- Director of Research, Senior Executive Council

Industry Experts

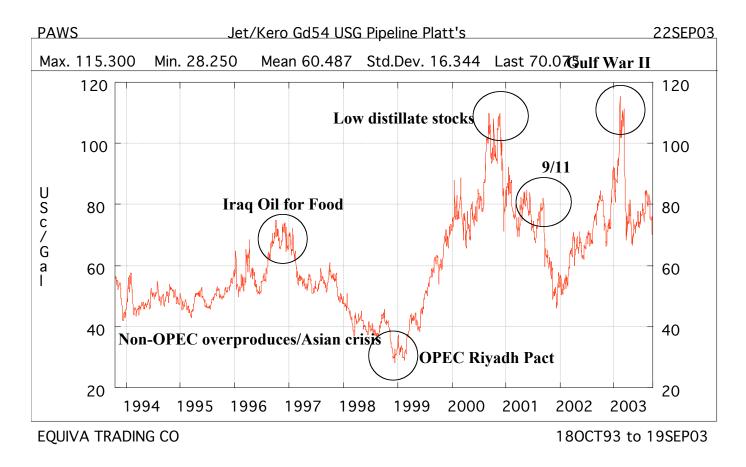
- Delta Air Lines
- Shell Trading
- BP Fuel
- McKinsey and Company
- Morgan Stanley
- Accenture



I. Overview of Fuel Market and Current DoD Practices Primary Sources: Shell Trading; Defense Energy Support Center (DESC)



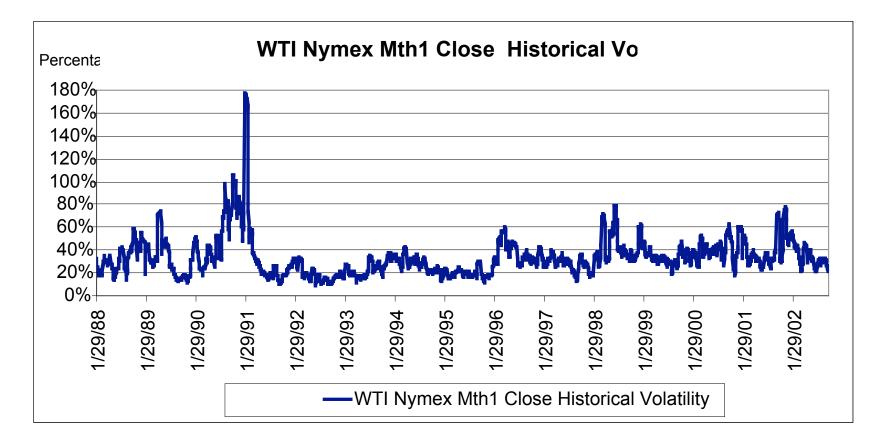
Historical Jet Fuel Price Fluctuations



March 2004



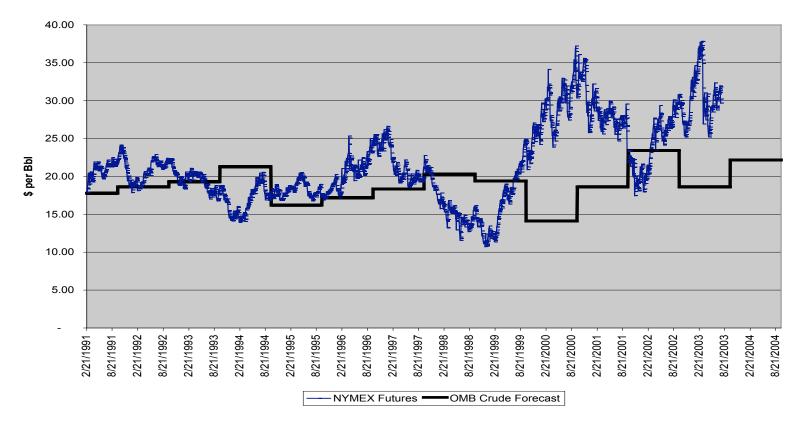
Historical Volatility





Crude Oil Prices v. OMB Forecast

NYMEX Crude vs OMB Forecast





🔶 Task Group \land Objectives 🔶 Process 🔷 O

♦ Observations ♦ Recommendations

ns 🛛 🔶 Next Steps

Impact of OMB Budget/Actual Price Disparity

Price per Bbl	OMB Estimate Actual				Actual as % of OMB Estimate	Actual Barrels Sold (M)*	Dollar Impact	What Happened**
FY 1992	\$	18.62	\$	18.44	99%	146.1	(32.0)	Budget Year prices adjusted
FY 1993	\$	19.30	\$	18.14	94%	140.9	(198.6)	Budget Year prices adjusted
FY 1994	\$	21.28	\$	16.04	75%	127.9	(814.3)	Appropriation Act transferred \$587.901 million
FY 1995	\$	16.21	\$	16.41	101%	122.1	29.7	Appropriation Act transferred \$140.6 million
FY 1996	\$	17.19	\$	18.71	109%	121.0	223.5	Budget Year prices adjusted
FY 1997	\$	18.36	\$	20.35	111%	111.7	270.1	Budget Year prices adjusted
FY 1998	\$	20.29	\$	14.24	70%	111.0	(815.9)	Budget Year prices adjusted
FY 1999	\$	19.39	\$	13.76	71%	111.1	(760.0)	Appropriation Act transferred \$569 million
FY 2000	\$	14.12	\$	25.88	183%	107.7	1,538.9	Supplemental Appropriation of \$1.561 billion
FY 2001	\$	18.62	\$	28.48	153%	110.3	1,321.4	Appropriation Act transferred \$800 million
FY 2002	\$	23.42	\$	22.35	95%	132.4	(172.1)	Budget Year prices adjusted
FY 2003 est	\$	18.63	\$	28.49	153%	140.0	1,677.2	Supplemental Appropriation of \$1.1 billion

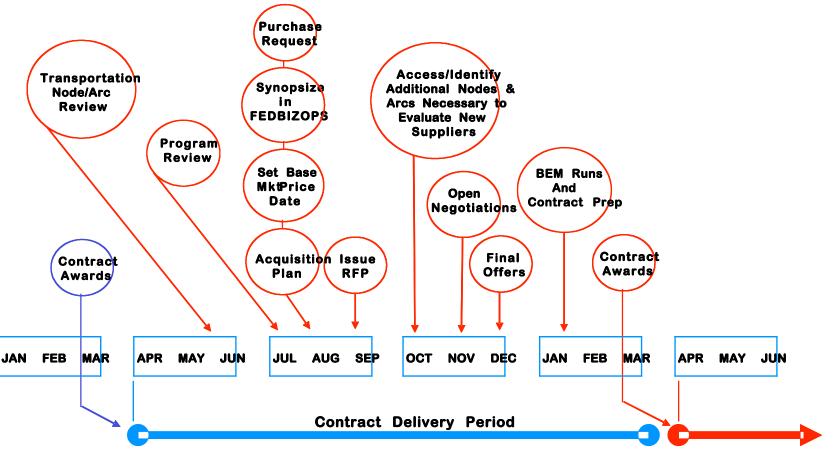
*Actual barrels of refined oil sold by DESC

**Congressional action may or may not correlate with actual dollar impact. Appropriation and transfer decisions often made before impact is known



Bulk Purchase Programs – Key Dates

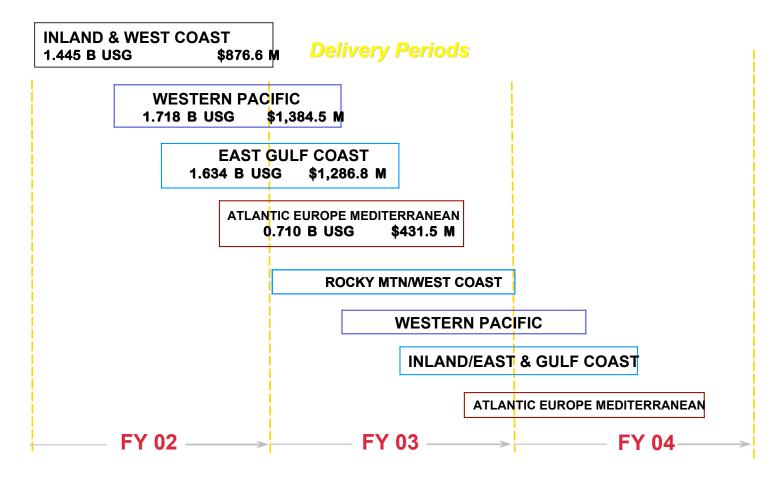
Example: Inland East and Gulf Coast U.S.



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Bulk Fuels Purchase Programs



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DoD Bulk Fuels Organization







II. Review of Commercial Practices

Sources: McKinsey and Company, Delta Airlines



Rationale for Airline Fuel Hedging

Business Interruption

• Avoid loss of service due to fuel shortages, fluctuations in pricing

Financial Distress

• Create stable, predictable cash flow to avoid distress

Business Predicability

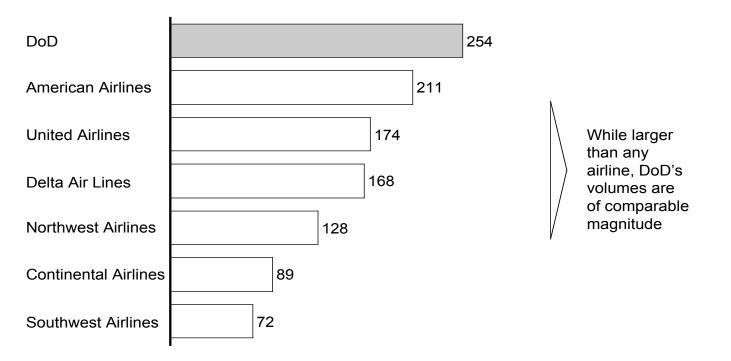
- Stabilize volatility of cash flow for predictable operating costs
- Improve management planning process

Value Creation

- Create value through effective trading
- Minimize long-term fuel expense



DOD JET VOLUMES COMPARABLE TO MAJOR US AIRLINES: 2001–2002* MBPD



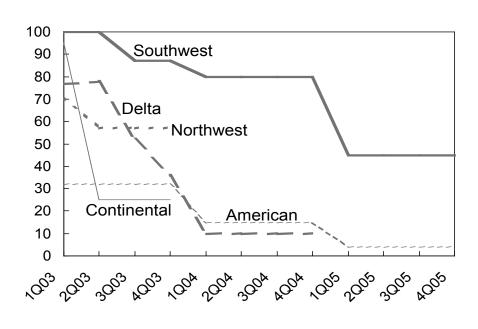
* Volumes shown are average volumes for 2001 - 2002 Source: Companies' 10-Ks, 10-Qs; DESC Factbook 2002; McKinsey analysis

Source: McKinsey and Company



HEDGING STRATEGIES VARY ACROSS MAJOR AIRLINES

Hedges by degree and tenor, as of 12/02 Percent



Key elements of hedging programs

Next Steps

Southwest

- Uses calls, collars, and swaps
- Hedges in crude and heating oil

Delta

• Uses primarily crude and heatingoil derivatives

Northwest

 Uses futures contracts traded on regulated exchanges, OTC swaps

Continental

- Uses petroleum call options for short-term protection
- Also uses swaps and jet fuel purchase commitments

American

• Uses options and swaps on crude and heating oil

Source: McKinsey and Company

Source: Companies' 10-Ks, 10-Qs



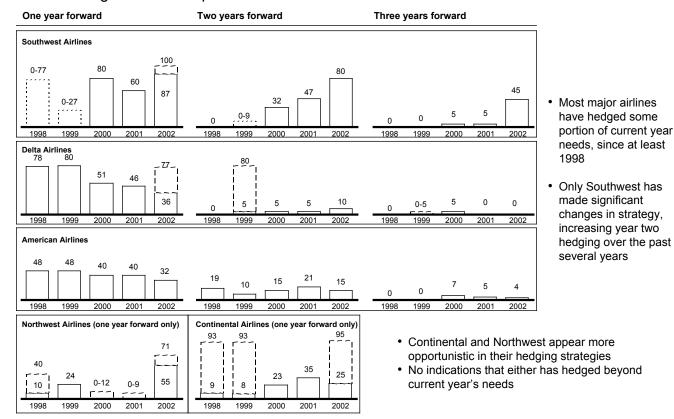
♦ Observations

Next Steps

E Range within year

AIRLINE HEDGING STRATEGIES OVER TIME

Percent hedged at various points in time*



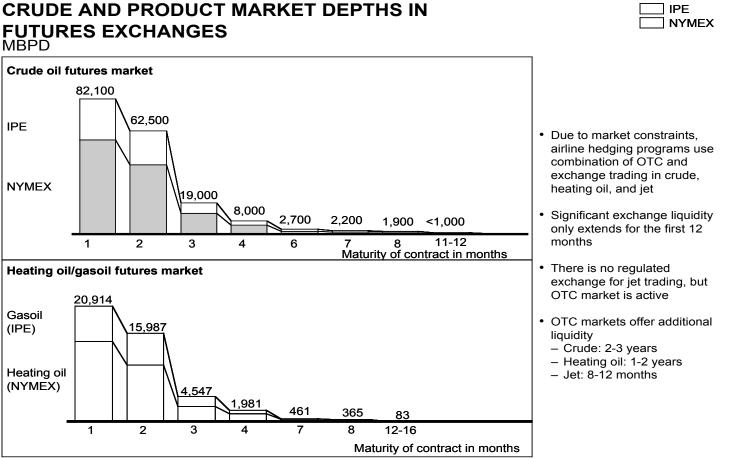
* Percent of estimated fuel needs hedged, regardless of commodity used to hedge (e.g., crude vs. jet)

Source: McKinsey and Company

March 2004

Source: Companies' 10Ks





MBPD

IPE

NYMEX

Gasoil

Heating oil

(NYMEX)

(IPE)

82,100

1

20,914

2

Source: Bloomberg; industry interviews

2

1

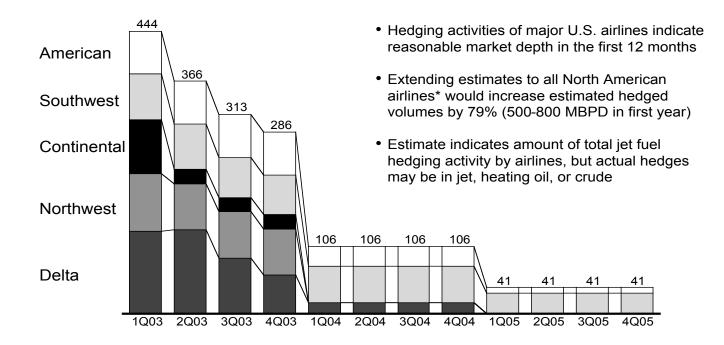
Source: McKinsey and Company

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AIRLINE HEDGED VOLUMES, AS OF DECEMBER 2002 MBPD

ESTIMATES



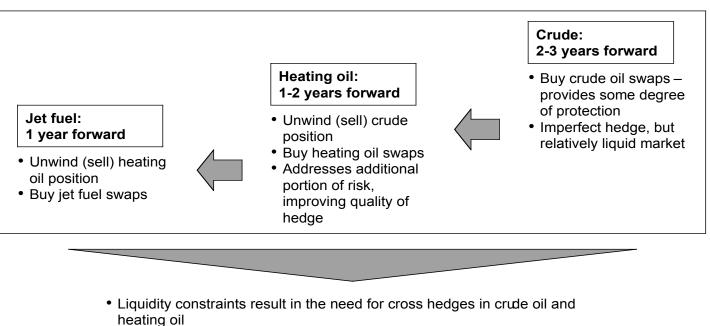
* These airlines, United Airlines (no hedging as of 12/02), and DoD account for 56% of North American demand Source: Companies' 10Ks; IEA; McKinsey analysis

Source: McKinsey and Company

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AIRLINES TYPICALLY USE ROLLING HEDGES

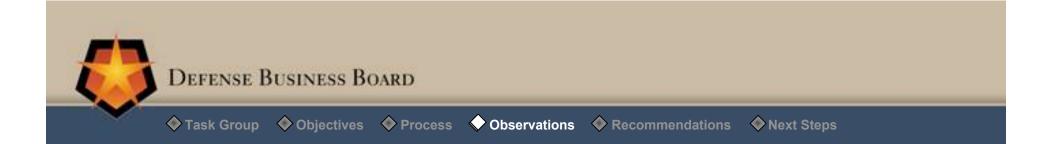


- neating of
- In practice, positions are traded daily, in small lots
- Because it involves perpetual trading, a rolling hedging programdoes not eliminate price risk. However, it does provide near-term certainty and pushes exposure into future, where volatility is less

Source: Interviews

March 2004

Source: McKinsey and Company



III. Hedging Options Primary Source: BP Fuel



Active Risk Management

Active 'properties'

- Daily review of energy markets and mark to market positions
- Actively target exit and entry points of market
- Extensive use of financially settled instruments versus physical

Advantages:

- Keener awareness of energy market and positions
- Flexibility on timing
- More 'hand's on' management
- Tailor instruments to risk

Disadvantages

- Requires dedicated resources
- Increased reporting requirements
- Cash/Collateral management issues
- More cash settlements



Passive Hedging

Passive 'properties'

- More use of risk tools coupled with physical (fixed/capped fuel)
- "Lock and Hold"

Advantages:

- Limited resource required
- Little monitoring
- Minimal or zero cash settlements
- Used primarily for meeting or beating budgets

Disadvantages:

- Once in difficult to get out (similar to take or pay contracts)
- Depending on instrument may not be able to take advantage of lower market prices



Outsourcing versus In-House

Outsourcing advantages

- Immediate expert resource
- Efficient/low cost
- Customized tailoring of rm program to risk profile
- Avoid infrastructure investment

Disadvantage

- Costs
- Little 'hand's on' (must trust provider)
- More reliance on 3rd party



In-House

Advantages

- Control
- Flexibility
- Build expertise

Disadvantages

- Must pay for resources
- Greater (and quicker)learning curve
- Infrastructure investment



Supplier Bundled

How it Works: A Risk Management (RM) tool is coupled with the physical fuel delivered at a specific location.

Examples:

- Fixed price physical
- Capped price physical
- Collared physical

Advantages:

- Lower resource requirements
- No basis risks
- No settlement transactions
- Guaranteed availability of supply from seller

Disadvantages

- On a fixed cost basis opportunity costs if market falls
- On a capped price you pay a premium



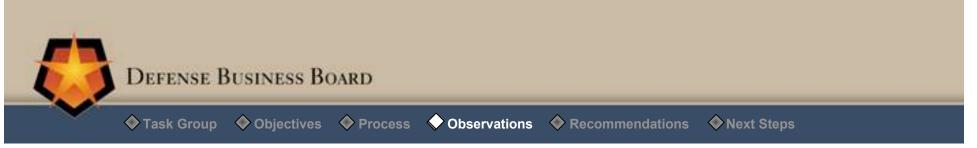
'Self Hedged'

Companies who do not hedge do so because...

- They have offsetting positions (Large integrated oil company)
- They can pass actual cost back to end consumer (Cargo carriers and surcharges)
- Liquidity or instrument does not exist (diamond risk)
- They choose not to do so because...
 - Their risk is minimal
 - They have a captive market
 - They are not knowledgeable about how to mitigate their risks
 - They lack resource



IV. Hedging Risks and Opportunities for DoD



Objectives of Fuel Hedging

Commercial Sector:

- Mitigate cash flow volatility
- Insure against financial distress
- Reduce earnings volatility
- Minimize long-term fuel expense
- Facilitate improved management planning
- Create value through effective trading

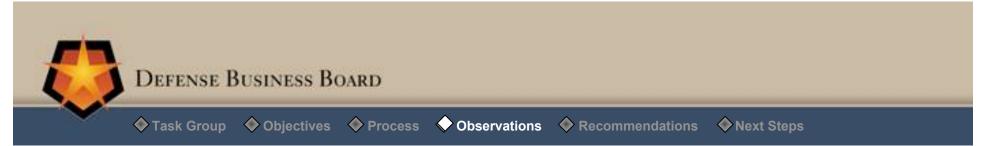
DoD (prospective):

- Reduce budgetary uncertainty (price hedging)
- Reduce disruptions to non-fuel programs caused by unanticipated requirements for funds to pay higher-than-expected fuel bills (price hedging)
- Reduce potential political liability related to additional funding requests to cover higher-than-expected fuel prices (price hedging)



PROS

- Uncertainty/risk related to future fuel prices can be reduced.
- The need for supplemental funding to cover unanticipated price increases can be eliminated.
- Fuel price stability will contribute to more effective budget planning, more
 predictable budget execution, and will discourage disruptive behavior such as
 the tendency to "low ball" projected fuel prices in order to include more non-fuel
 programs in the budget.
- There is some precedent to the use of fuel hedging in the public sector. Fuel hedging is a common practice in the private sector utilized by heavy fuel users. Large municipalities and transportation authorities also employ hedging in the public sector, however no federal agencies (to our knowledge) currently use fuel hedging.



CONS

- As a whole, DoD is not highly exposed to fuel price volatility:
 - Although DoD spent close to \$4 billion on fuel, costs represents about 1% of the total DoD budget compared to 10% of airline operating expenses.
 - Largest unanticipated growth in fuel prices during the past ten years cost DoD \$1.7 billion—this is likely an extreme case, but still represents only 0.5% of the DoD budget.
 - In response to fuel price increases, Congress always authorizes either supplemental funds or increased rates in the Working Capital Funds to cover price increases.
 - Price hedging does not protect against the negative impact demand volatility has on DoD's budget.
- There is a cost to hedging:
 - Administrative costs to manage program--\$TBD per year.
 - Transaction costs could range from approximately \$10 to \$250 million per year depending on type of hedges in place and level of risk mitigation.



CONS (continued)

- Fuel hedging may not save DoD any money over the long run:
 - Transaction and administrative costs could increase the overall cost of the fuel program—what you are buying is predictability.
- Potential political cost has several dimensions:
 - Laws must change to give DoD authority to engage in price hedging through the use of non-physical futures and other financial instruments. Substantial political capital may be required to persuade Congress to authorize.
 - High potential for public criticism of DoD's use of hedging/derivative instruments.
 Unfair comparisons to corporate scandals such as Enron are possible.
- Government is already "self-hedged":
 - OMB considers the federal government to be "self-hedged" on approximately 80% of its fuel costs because Defense fuel <u>costs</u> vary in direct proportion to <u>income</u> earned through the Interior Department's gas and oil lease programs. As Defense fuel costs increase, Interior's income increases thereby offsetting the higher Defense fuel cost.



CONS (continued)

- Price hedging through the use of fixed price contracts is unacceptable because it would likely:
 - Limit competition in the supplier base.
 - Negatively impact small business participation (30% of bulk fuels contracts currently awarded to small business).
 - Create potential performance risks for fuel support to the warfighter.



V. Recommendations



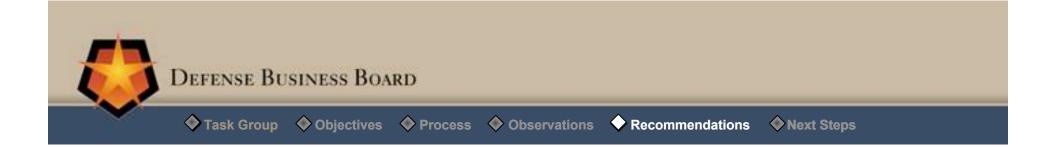
The following options were deliberated by the Board:

- 1. Don't Hedge
- 2. Implement a Low-Risk Pilot Program:
 - a. Basic version: Commercial market hedging
 - b. Variant: "Non-Market" hedging



Consensus Recommendation: Implement a Low-Risk, "Non-Market" Pilot Program

- OMB could seek legislative authority to engage in an "intergovernmental hedging" arrangement with DoD and the Department of Interior's Minerals Management Services (MMS).
 - _ MMS generates approximately \$4 billion per year in revenue through leasing both offshore and on-shore energy resources.
 - _ Pricing for those resources fluctuate in direct proportion to indexed fuel prices.
 - _ When fuel prices go up unexpectedly, MMS "makes" money and DoD "loses" money and vice versa.



Implement a Low-Risk, Non-Market Pilot Program (continued)

- OMB could manage the hedge during budget execution by transferring funds between Interior and Defense during budget execution depending on which Department benefits from unanticipated price increases.
 - _ The transfers should be done using a formula that is agreed to ahead of time, and made known to Congress, so that there is no possibility of using the hedging approach to change the real resources available to either Department.
- This "non-market" hedging should allow DoD to realize many of the benefits of hedging in connection with hedging in the commercial markets. At the same time, non-market hedging would avoid some of the practical and political disadvantages.



Appendix: Legislative and Staffing Considerations Primary Source: DESC General Counsel



Primary Legal Barriers to Hedging Program

"Necessary Expense rule"

- Expense of hedging program must be justified as bearing a logical relationship to the appropriation being charged
- Direct purpose is to hedge budgetary risk, GAO has not addressed whether this is a necessary expense for any agency

No Specific Authority

- DoD has no specific authority to engage in transactions involving futures of options contracts
- DoD's general procurement is limited to products and services

DoD Lacks Authority to derive cash benefit from liquidated positions in financial markets

• To effect the value of the hedge, cash from liquidated positions should go into the Working Capital Fund—however no authority exists for this. Cash would go directly to the Treasury.



Staffing Requirements

Airline model is most applicable to DoD requirements:

- No in-house trading operation
- Small internal staff
- Outsourced service provider (market and transactional expertise)
 - Must have trading capability to lay off risk
 - Transactions fees received from customer (airline, DoD, etc.)
 - Additional profit from arbitrage in trading operation