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How Oil Prices Affect the Fiscal Gap

by Scott Goldsmith

A \$5 difference in the price of a barrel of oil could mean the difference between a balanced state budget and a \$650 million shortfall in FY 1992. And the higher the price of oil, the more time Alaska has until the fiscal gap opens. (Figures 1 and 2.)

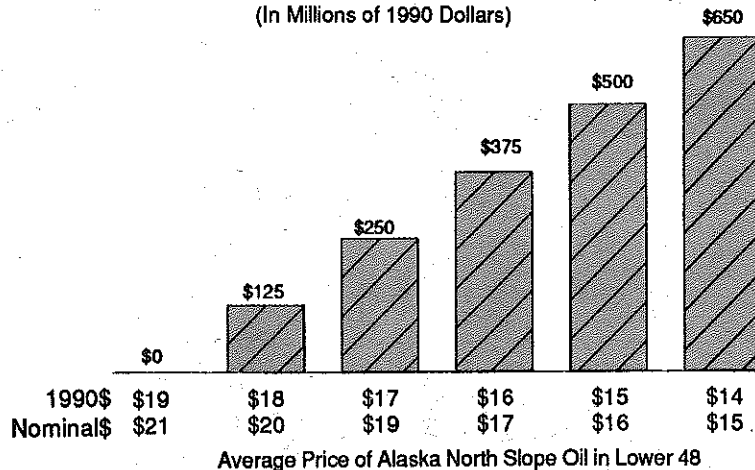
The spot price for oil has fluctuated dramatically in early 1990, falling from \$19 to \$14 per barrel within a few weeks and most recently rising again. We've been reminded once more of the inherent instability of oil markets and prices. Although most Alaska oil is sold at prices determined by long-term contracts, contract prices do follow trends in spot prices.

The State of Alaska is exceptionally vulnerable to falling oil prices because (1) petroleum revenues supply 85 percent of its income; and (2) petroleum production is declining.

In its ongoing series of *Fiscal Policy Papers*, ISER has emphasized that even with stable or rising oil prices Alaska must prepare for smaller revenues because of declining North Slope production. How soon a fiscal gap (a shortfall in what we collect from existing sources as compared with what we spend) appears and how wide it is depends primarily on two variables—the price of oil and the level of state spending.

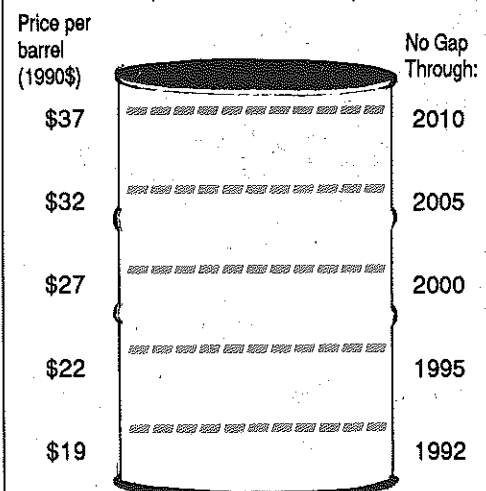
Here we estimate the timing and size of the state fiscal gap at the currently proposed \$2.5 billion level of spending and at various oil prices. The analysis is based on existing revenue sources and on the state's receiving \$200 million annually in settlements of petroleum disputes through 2000. Adding new revenue sources would change the picture, as we discussed in *Fiscal Policy Paper #3*.

**Figure 1. Potential FY 1992 Fiscal Gap*
At Various Oil Prices and At \$2.5 Billion State Spending
(In Millions of 1990 Dollars)**



*Based on Alaska Department of Revenue's spring 1990 projections, augmented by \$200 million in settlements. If the state doesn't receive settlements, gap would increase by \$200 million.

**Figure 2. How Higher Oil Prices
Postpone the Fiscal Gap***



*Sustained oil price, 1991-2010, and \$2.5 billion (in 1990\$) state spending.

This fiscal note is an offshoot of ISER's *Fiscal Policy Papers*, a series examining Alaska's looming budget crisis as petroleum revenues decline. The author, Scott Goldsmith, is professor of economics with ISER and has 14 years of experience analyzing state spending. This work was funded by a grant from ARCO Alaska.

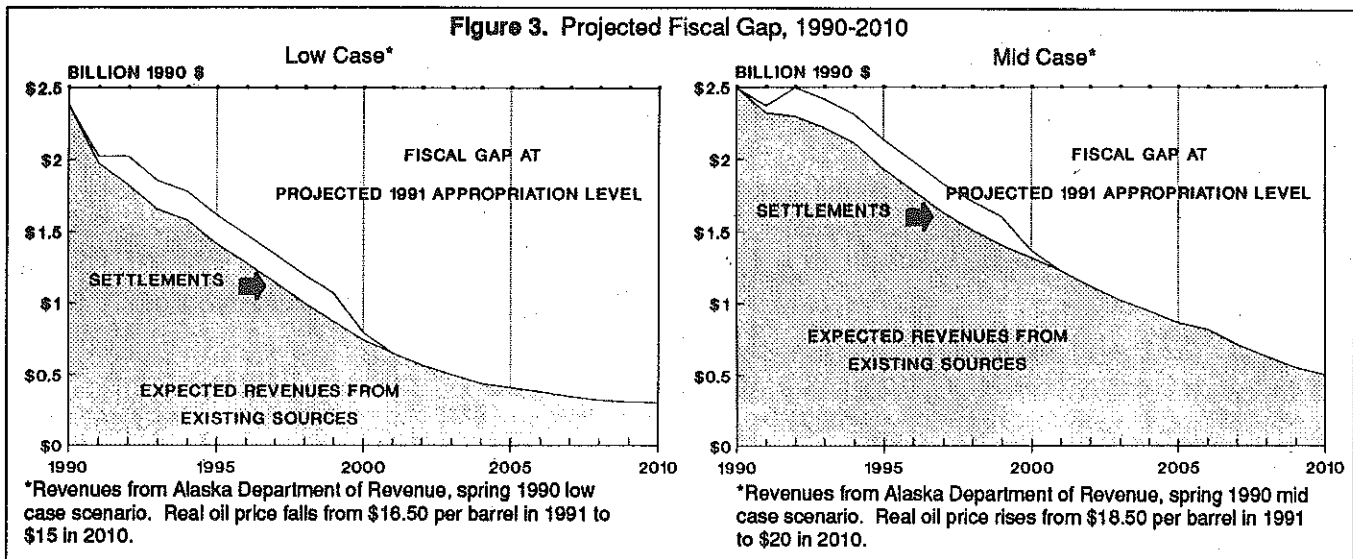
We present the figures primarily in 1990 dollars, an adjustment that eliminates the effects of inflation and makes state buying power and prices comparable over time. Our findings are presented in Figures 1 through 3 and summarized below.

- With real oil prices at \$19 per barrel and with \$200 million in settlement payments, the 1992 budget would balance, if state spending were at \$2.5 billion. At real prices between \$18 and \$14 per barrel the fiscal gap would vary from about \$125 million to \$650 million. (Figure 1.)
- A state fiscal gap would open in 1993, if real oil prices were at \$19 per barrel. Figure 2 shows how various oil prices (in 1990 dollars), sustained from 1991 through 2010, would postpone the fiscal gap, if real state spending were held to \$2.5 billion annually. Oil at \$22 per barrel would delay the gap through 1995; \$27 per barrel oil would push the

gap back through 2000; \$32 per barrel oil would delay the gap through 2005; and \$37 per barrel oil would postpone the gap through 2010.

- Once the fiscal gap opens it will grow steadily—but it would grow much faster at lower oil prices. Figure 3 shows that if the Department of Revenue's spring 1990 low-case scenario (real oil price falling from \$16.50 per barrel in 1991 to \$15 in 2010) proves accurate, the gap would start at about \$500 million in 1992 and grow quickly to about \$800 million by 1995 and more than \$1.5 billion by 2000. If the department's mid-case scenario (real oil price rising from \$18.50 per barrel in 1991 to \$20 in 2010) proves accurate, the gap would open at about \$100 million in 1993, increase to \$300 million by 1995, and stand at around \$1 billion by 2000.

Figure 3. Projected Fiscal Gap, 1990-2010



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