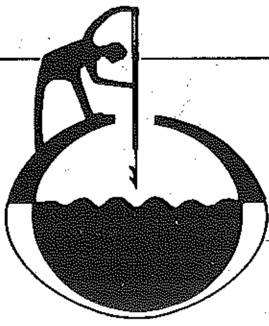

ISER FISCAL POLICY NOTE

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Institute of Social and Economic Research University of Alaska Anchorage

Oil Price Surprises and the Budget

By Scott Goldsmith

Oil prices soared following the recent Iraqi take-over of Kuwait. As we go to press it is uncertain what will happen next in the Middle East crisis and to oil prices.

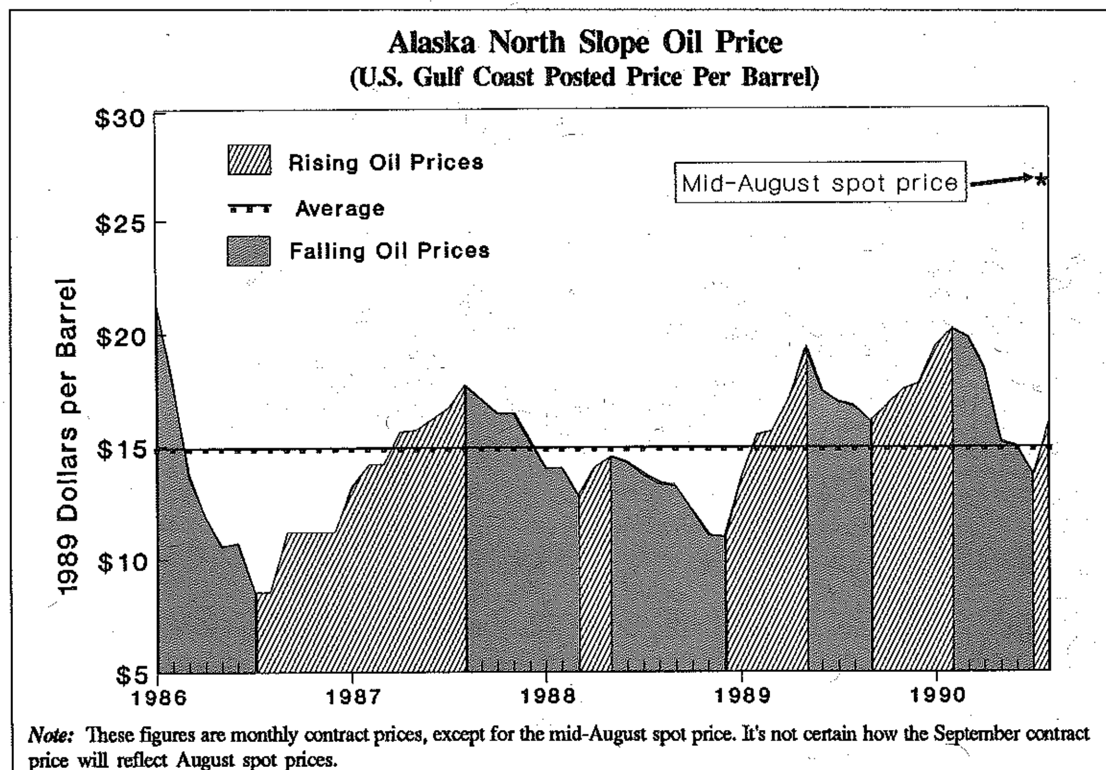
Before the crisis, oil prices had dipped sharply. The sudden big changes in oil prices this summer have made plain once again that the price of oil today doesn't predict the price of oil tomorrow.

Unfortunately, policymakers drawing up state budgets each year tend to use the price of oil prevailing during the legislative session as the basis for predicting oil prices and therefore state petroleum revenues. Those revenues make up about 85 percent of state income.

In three of the past four years, periods of rising oil prices coincided with the time the legislature was in session—from January to May. But overall during that period nominal prices fell 26 times, most recently after the 1990 legislative session. Figure 1 shows the continuous motion in real (adjusted for inflation) oil prices by month since 1986.

Right now it looks as if the latest price spike will balance the budget for the coming year. But just a few weeks ago it appeared the state would be hundreds of millions of dollars short in fiscal 1991, causing Governor Steve Cowper to veto $325 million from the $2.9 billion budget enacted earlier by the legislature.

Alaska has been through repeated episodes of exhilaration and anxiety as the price of oil moved up and down. Oil prices fluctuate because they're controlled by the Organization of Petroleum Exporting Countries (OPEC) cartel, to which both Iraq and Kuwait belong.



Note: These figures are monthly contract prices, except for the mid-August spot price. It's not certain how the September contract price will reflect August spot prices.

This note is an offshoot of ISER's *Fiscal Policy Papers*, a series examining the looming state fiscal crisis as petroleum production and therefore state petroleum revenues decline. The author, Scott Goldsmith, is professor of economics with ISER. Copies of the *Papers* and *Notes* are available at no charge from ISER. This work was funded by a grant from ARCO Alaska.

The cartel assigns production quotas to each member, but when prices are high OPEC members exceed their quotas and when prices fall they cut production.

So there is no stable production level and no stable price, but rather an endless cycling. From the time of the price crash in early 1986 until the Iraqis invaded Kuwait, the price continually fluctuated within a range of roughly $10 to $20 per barrel. (See the box below for a description of various published oil prices.) Under ordinary market conditions (which don't exist today), demand and supply keep the price within that band.

Recognizing the volatility of oil prices, policymakers could reduce the potential for error in estimating petroleum revenues by using some *average* of past prices rather than current prices as a basis for the budget. (Notice in Figure 1 that the average real price over the past four years was very close to the price just before the current crisis began.) Instead of monitoring day-to-day changes in oil prices, policymakers could focus on a more critical problem for the state: the fiscal implications of the long-term decline in petroleum *production*. These production declines will create a budget shortfall of increasing proportions as the decade goes on. Higher oil prices can delay the onset of the fiscal gap but not close it.

Which Is The Real Oil Price?

Different prices exist for every quality of crude oil, delivered to every different location, under every type of contract, and at every time. *Contract prices* for crude oil change infrequently, while *spot prices* (price for tanker loads) and *futures prices* (prices for future delivery) fluctuate daily. To further complicate matters, the relationship between prices of different crudes at different locations changes continually, because of market conditions and other factors.

The key price for calculating the State of Alaska's petroleum revenues is the average Alaska North Slope *(ANS) wellhead price.* That price is not readily available, but a good proxy is the *U.S. Gulf Coast posted price* for ANS—which is the price we use in this note. Some of the commonly quoted oil prices are described briefly below.

OPEC Price: The official target price of the cartel is a weighted average of the prices of several crudes produced by OPEC and others, assuming cartel members adhere to their quotas. The actual price can differ, depending on market conditions.

Saudi Light FOB Persian Gulf: The price quoted for delivery to Persian Gulf ports of a crude which is the dominant product of Saudi Arabia and is similar in quality to ANS crude. This price—a bit less than the OPEC price—is the starting point for the Alaska Department of Revenue's price projections.

West Texas Intermediate Spot Price at U.S. Gulf: The price for a crude traded on the Gulf Coast that has lower sulfur content than ANS crude, and therefore sells for about $2 a barrel more.

U.S. Gulf Coast Spot Price for ANS: The daily price quoted for ANS transactions on the Gulf Coast.

U.S. Gulf Coast Posted Price for ANS: The price quoted by BP Exploration each month for ANS crude sold on the Gulf Coast. The state government's petroleum revenues have been consistent with this price.

Average ANS Lower 48: The weighted average of ANS crude prices on the U.S. West and Gulf coasts. (The West Coast price has historically been below the Gulf Coast price.)

ANS Wellhead Price: The price of ANS crude at the point where state revenues are calculated—generally pump station #1 at the start of the trans-Alaska pipeline; the price excludes most transportation costs.

Crude Oil Futures Price(s): The price in some future month for West Texas intermediate crude delivered to the U.S. Gulf Coast or of Brent crude from the North Sea brought ashore in Scotland.

ISER Fiscal Policy Note
Institute of Social and Economic Research
University of Alaska Anchorage
E. Lee Gorsuch, Director
3211 Providence Drive
Anchorage, AK 99508

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