Research Department Federal Reserve Bank of San Francisco

May 25, 1979

# **Export Alaskan Oil?**

While struggling with the shortage of gasoline in the California consumer market, the oil industry and official Washington have until June 22 to deal with a related problem what to do with the "surplus" Alaskan oil which West Coast refineries cannot utilize because of their limited capacity to process that relatively high-sulfur crude. lune 22 marks the expiration date for a 1977 amendment to the **Export Administration Act which** sharply restricts the marketing of Alaskan oil outside the United States. Many Congressmen want to extend or even tighten the restrictive amendment; the Administration, on the other hand, would prefer to live with the more flexible language of the earlier Trans-Alaska Pipeline Authorization Act.

The catalyst in this debate is the proposed so-called "swap" arrangement, a transportationcost-saving export exchange under which Alaskan oil would be shipped to Japan in exchange for an equivalent amount of Japanbound foreign-produced oil diverted to the U.S. Gulf or East Coasts. Mexico in particular has been mentioned recently as a possible third party in such an arrangement. Under the Trans-Alaska pipeline legislation, the President could permit exports if they were in the form of exchanges with adjacent nations on grounds of transportation efficiency, or, if the President found that the export in question was in the national interest and did not "diminish the to-

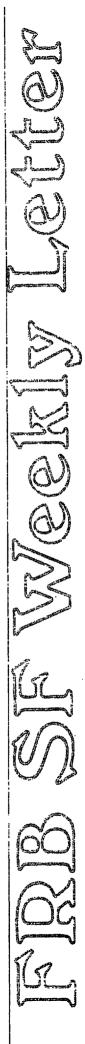
tal quantity or quality of petroleum available to the United States." Additional restrictions were later placed on exports, and under the proposed legislation now being debated in Congress to renew and strengthen that amendment, the President also would have to certify that any export scheme would actually help reduce the cost to refiners, marketers and consumers. Both houses of Congress also would have to approve the arrangement. In effect, this would eliminate the export option.

#### Distribution of oil

The debate raises the key question of whether "swaps" would help or hinder the key objective of the nation's energy policy: namely, to reduce U.S. dependence on foreign oil imports and vulnerability to supply interruption. Alaskan North Slope production, since coming on stream in July 1977, has contributed to that goal. Production has risen gradually to a current level of 1.2 million barrels a day, displacing a roughly equivalent amount of foreign crude oil at U.S. refineries on the West and Gulf Coasts.

West Coast (District V) refineries now absorb about 850,000 b/d of total Prudhoe Bay production. That amount represents just about the maximum volume those refineries presently can handle, given their product mix, environmental requirements, and technical capacity for processing high-sulfur Alaskan crude. The remaining

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350,000 b/d is shipped by U.S. flag tankers from the Alaska pipeline terminus at Valdez to Gulf Coast refineries through the Panama Canal.

Advocates of the swap arrangement claim that their proposal would reduce producers' transportation costs, increase the return at the wellhead, and thereby provide producers with the incentive to increase North Slope and other Alaskan production. Shipment through the Panama Canal is more costly than other alternatives for marketing the Alaskan oil that is surplus to the needs of the West Coast, mostly because the Jones Act, of 1917 vintage, requires the use of costly U.S. flag vessels between American ports. The present system also yields Alaskan producers the lowest price at the wellhead. This is because petroleum's selling price in any given market is based on the landed price for Saudi-Arabian crude, and North Slope producers must absorb transportation costs in order to compete against foreign crude in those markets.

#### **Producer revenues**

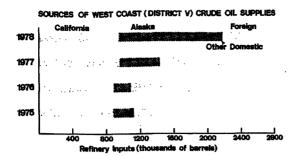
North Slope crude now sells for an estimated \$15.79/barrel on the U.S. Gulf Coast. However, North Slope producers receive a well-head price of only about \$6.34/barrel, after subtracting the Trans-Alaska pipeline tariff of \$6.20/barrel and the Valdez-Panama Canal-Gulf Coast shipping cost of \$3.25/barrel. But under a swap arrangement, North Slope oil could be shipped to Japanese refineries in foreign tankers at a

cost of only about \$0.40/barre!, and this cost saving would mean a \$2.85/barrel increase in the well-head price to Alaskan North Slope producers. If Mexico were the third party in the exchange, Mexican producers similarly would benefit from diverting their Japan-bound crude to U.S. Gulf Coast refineries at a shipping cost of only \$0.40/barrel.

Proponents of export exchanges maintain that these transportationcost savings are essential to help finance the necessary increase in North Slope production that would enable the Alaska pipeline to be expanded and utilized to its full 2.0 million b/d potential. Production from the main Prudhoe Bay reservoir — the Sadlerochit should reach potential capacity of 1.5 million b/d by late next year, and will probably fall below that level by the mid-1980's. Some output may become available from. nearby — as yet untapped reserves. But a major expansion sufficient to meet the pipeline's fullpotential throughput may require the development of higher-cost reserves in new areas, for example, in the Beaufort Sea.

#### Criticism of swaps

Critics of the swap proposal, while agreeing that it would boost producer revenues and thus production incentives, argue that other alternatives are preferable, especially when energy security is considered. Producer transportation costs also could be lowered by shipping Alaskan crude through domestic pipelines, such as the proposed Sohio line from Long Beach, California to Midland,



Texas, and the proposed Northern Tier pipeline from Port Angeles, Washington to Clearbrook, Minnesota. Moreover, North Slope producers already benefit from every increase in the OPEC price; since last December alone, the wellhead price for North Slope oil sold on the Gulf Coast has risen about 20 percent, simply on the basis of the sharp run-up in the Saudi landed price. Again, producer revenues could be increased, on an after-tax basis, by a reduction in Alaskan state taxes and/or Federal income taxes.

Both sides agree that increased domestic production, with or without swap arrangements, will tend to reduce net imports of petroleum for any given level of consumption. Thus, as long as domestic production expands, the U.S. oil trade balance will improve relative to what it otherwise would have been. In other words, export exchanges have a neutral effect on net imports. But critics of such arrangements argue that swaps increase gross imports, and so expose the U.S. to a higher degree of potential supply interruption than would a more restrictive policy. Further, they argue that even if exported Alaskan oil were redirected back to this nation in a supply curtailment directed against the United States, that action would simply transfer the dislocation to Japan and would thus undermine Japan-U.S. relationships. But in response, advocates of swap arrangements argue that a restrictive policy would undermine the efficiencies that should accrue to the domestic economy from unhampered world trade.

Critics of export exchanges admit that such arrangements would result in somewhat higher wellhead prices and higher profits for Alaskan producers than domestic pipelines, but they would still reject that solution on energyindependence grounds. Most such critics would opt instead for the Long Beach, California/Midland. Texas pipeline that would bring Alaskan oil to the Midwest and/or the Northern Tier pipeline that would serve the states bordering on Canada (such as Montana, North Dakota and Minnesota). Those pipelines also would result in higher wellhead prices for producers than would the Panama Canal route — although not as high as with export exchanges. But they would have the added advantage of minimizing the threat of outside supply interruption. Moreover, without the Northern Tier pipeline, that region of the U.S. is likely to face the prospect of a crude oil shortage by 1982, when the Canadian government — in its own interests of self-sufficiency — stops exporting its crude oil as planned.

By acting next month to exclude the export option, Congress would create an incentive for producers to invest in domestic pipelines, and also to retrofit their refineries to handle larger volumes of high sulfur North Slope oil. Thus, Congress might choose the weaker economic alternative in favor of what appears to be a stronger approach from the autarkic standpoint of energy independence and supply security.

Yvonne Levy



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### BANKING DATA—TWELFTH FEDERAL RESERVE DISTRICT (Dollar amounts in millions)

Selected Assets and Liabilities	Amount	Change	Change from year ago @		
Large Commercial Banks	Outstanding	from			
	5/9/79	5/2/79	Dollar	Percent	
Loans (gross, adjusted) and investments*	125,686	711	+ 17,724	16.42	
Loans (gross, adjusted) — total#	102,737	532	+ 16,848	19.62	
Commercial and industrial	30,259	87	+ 3,723	14.03	
Real estate	36,594	128	+ 7,794	27.06	
Loans to individuals	21,330	83	NA	NA NA	
Securities loans	1,736	92	NA NA	NA	
U.S. Treasury securities*	7,790	83	- 164	- 2.06	
Other securities*	15,159	96	+ 1,040	+ 7.37	
Demand deposits — total#	40,650	- 1,947	+ 2,624	+ 6.90	
Demand deposits — adjusted	30,182	- 352	+ 1,578	+ 5.52	
Savings deposits — total	29,596	- 36	- 763	- 2.51	
Time deposits — total#	49,918	238	+ 6,300	+ 14.44	
Individuals, part. & corp.	40,624	237	+ 6,939	+ 20.60	
(Large negotiable CD's)	17,157	96	+ 1,146	+ 7.16	
Weekly Averages	Week ended	Week end	Week ended Comparable		
of Daily Figures	5/9/79	5/2/79		year-ago period	
Member Bank Reserve Position		T			
Excess Reserves (+)/Deficiency (-)	14	<b>1</b> 9	)	57	
Borrowings	90	224		148	
Net free reserves (+)/Net borrowed(-)	- <i>7</i> 6	- 214		92	
Federal Funds — Seven Large Banks		1	Į.		
Net interbank transactions	+ 2,304	+ 967	'   +	903	
[Purchases (+)/Sales (-)]	•	1		·-	
Net, U.S. Securities dealer transactions	+ 365	+ 220	+	427	
[Loans (+)/Borrowings (-)]					

<sup>\*</sup> Excludes trading account securities.

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<sup>#</sup> Includes items not shown separately.

<sup>@</sup> Historical data are not strictly comparable due to changes in the reporting panel; however, adjustments have been applied to 1978 data to remove as much as possible the effects of the changes in coverage. In addition, for some items, historical data are not available due to definitional changes.