~~B of P (6)~~

Balance of Payments (6)

Brunner paper - Oil

WPEA Section/H.B.Junz
December 1, 1973

Presents what are acknowledged as ~~the most~~ very optimistic estimates of the Arab oil boycott's effect on the economy.

Notes of Effects of Oil Supply Cutbacks on Industrial Countries' Output and Trade

The first approximation of the effect of an average 20 percent cutback in world supplies to Europe, Japan and Canada from those Arab countries that participated in the boycott, shows a shortfall in industrial output for these countries combined of 4 percent below what otherwise would have been in the first half of 1974 (see Table 1). These estimates are based on the following set of rather simplified assumptions:

(a) The flow of oil from Arab countries will again equal September, 1973 levels by June, 1974 for all countries other than the United States and The Netherlands;

(b) Oil shortages will produce mainly supply problems and adequate levels of aggregate demand will be maintained;

(c) Inventories of petroleum and petroleum products will not be drawn down below current levels, nor will inventories of finished goods;

(d) No bottlenecks, aggravating the general situation, will appear on the supply side;

(e) Assumption (a) implying a relatively short duration of the cutbacks also implies that there will be no switching to alternative sources of energy except to those that can be effected very quickly.

Under these assumptions it was possible, on the basis of the data of oil utilization for industrial purposes, shown in Table 2, and of certain additional assumptions about by how much oil consumption of households and for industrial and commercial heating purposes could be cut, to calculate approximate effects of oil shortages on industrial output. The calculation of shortfall in output was then related to import requirements of industrial materials. This yielded an estimated decline in imports of such materials from the United States of $3/4 billion for 1974. Because of the assumption that final demand would not fall beyond the amounts directly related to the shortfall in industrial output, demand for finished goods (both for domestic consumption and for exports) would outrun supply capabilities to an estimated amount of $1-3/4 billion for the period of the boycott. At the same time, U.S. import demand for goods from the industrial countries was estimated to fall by about $1/2 billion for the year as a whole, reducing pressure on supply capabilities somewhat.

It is clear that these assumptions are essentially very optimistic. It is likely that the uncertainties caused by the current situation will affect the investment climate in the industrial countries. It would appear reasonable to assume that those investment projects that can be postponed would at least be put off until the situation becomes clearer. This is particularly so because already appropriated funds can currently be employed at relatively high rates of return.

Also, the assumption that no bottlenecks would appear tending to reduce output further than the general effects of the oil shortages would indicate, is not realistic. Finally, the differential effect on various sectors of the economy, notably effects on the automobile industry, travel and hotel business, implies at least some fall off in demand. But, so far, the governments in the countries concerned seem to feel that they are still faced with a situation of supply shortages, exacerbated by shortfalls of energy, rather than by shortfalls of demand.

Taking all these considerations together, one would conclude that the estimates cited above probably represent the most optimistic constellation of facts. A more realistic set of assumptions would imply greater declines in output and a greater shrinkage in world trade.