

Abstract

This paper reviews the paths of world energy and oil demand over the past three decades, both over time and relative to income growth. We focus on the effects of oil price changes on demand, not only the oil price increases of the 1970's but also the oil price decreases of the 1980's.

Compared with demand in the industrialized countries (OECD), demand in the Less Developed Countries (LDC) has been more responsive to income growth, less responsive to price increases, but more responsive to price decreases. In the industrialized countries there has been an asymmetric, smaller demand response to the price decreases of the 1980's than to the price increases of the 1970's. But in the LDC there is less evidence of demand being imperfectly price-reversible: the price reductions of the 1980's have reversed much more of the demand reductions that followed the price increases of the 1970's, in comparison with the OECD.

Transportation oil has grown consistently, in all regions of the world, about as rapidly as income growth, and it is less price-responsive than non-transportation oil demand.

The LDC has exhibited much greater heterogeneity than the OECD, both in income growth and in the relationship of demand growth to income growth. This is true not only between the oil exporting countries and the others, but also between those LDC whose per-capita incomes have been growing steadily and those whose incomes have declined or been stagnant. It is important to analyze the behavior of these groups separately. Otherwise, the aggregation will distort the effects on demand of the price changes and income growth.

We expect a smaller demand response to future price increases than to those of the 1970's. The demand response to future income growth will be not substantially smaller than in the past. Finally, given the prospect of growing dependence on OPEC oil, in the event of a major disruption the lessened responsiveness of demand to price increases could cause dramatic price increases and serious macroeconomic effects.