

The proved remaining reserves component of the world's conventional crude oil resources is almost 700 billion barrels. The largest share of these proved reserves – nearly 58% – lies in the Middle East. In its year-end 1986 "Worldwide Report", *Oil & Gas Journal* gives the distribution of world oil reserves, as charted by EMR in Figure 9. Reserves are first characterized as OPEC or non-OPEC. The non-OPEC reserves are subdivided onto OECD, LDC and CPE reserves. OPEC holds an estimated 68.5%, or 478 billion barrels, of year-end 1986 world proved reserves of conventional crude oil; the OECD claims just 7.9%, or 55 billion barrels. Only one-fifth of world reserves lie in the non-OPEC, non-Communist world. The United States and Canada together hold less than 5% of world reserves. The North Sea holds a mere 3%, despite its current influence in world oil trade. Of particular note, the OECD countries consumed 57% of the world's oil in 1986 but held less than 8% of proved conventional oil reserves.

Within OPEC, Saudi Arabia, Kuwait, Iran and Iraq dominate; these four countries are estimated to hold 51% of the world's reserves of conventional crude and 74% of OPEC's reserves. Among non-OPEC producers, the Soviet Union and Mexico stand first and second respectively. Between them, they hold 52% of non-OPEC reserves and 16% of world crude reserves.

The global pattern of reserves does not match the pattern of crude oil production. Some countries are producing their reserves at high rates – notably the U.S.S.R., the United States, the United Kingdom and Canada – and other countries are producing their reserves at comparatively low rates – such as Kuwait, Saudi Arabia, Iraq and Mexico. The ratio of year-end proved reserves to production over the year is known as the reserves/production ratio (R/P ratio) and provides a measure of the longevity of current reserves. To illustrate, year-end 1986 proved reserves of crude oil in China were 18.4 billion barrels and 1986 production averaged 2.59 million barrels/day. Thus the R/P ratio was  $18.4 \text{ billion} \div (2.59 \text{ million} \times 365) = 19.5/1$  (usually written simply as 19.5). Figure 10 displays reserves/production ratios for the world as a whole; for OPEC, the OECD, the LDCs and the CPEs; and for important producers within each of the country groupings.

Figure 10 reinforces the fact that OPEC is currently underproducing its crude oil reserves relative to the remainder of the world. As a group, OPEC had a reserves/production ratio of 73 at year-end 1986, whereas the OECD nations stood at 10 and the CPEs at 14. Led by Mexico, the LDCs occupy an intermediate position with an R/P ratio of 30. The world's two leading producers – the Soviet Union and the United States – have R/P ratios of 13 and 8 respectively. Saudi Arabia, the third largest producer in 1986, has an R/P ratio of 97.

Another way of looking at the world's crude oil reserves is provided in Figure 11 which plots cumulative production against remaining reserves to year-end 1985. Again the dominance of the Middle East is apparent. Although cumulative U.S. oil production still substantially exceeds that of any other country, the reserves base which remains to support future U.S. output is now quite limited.