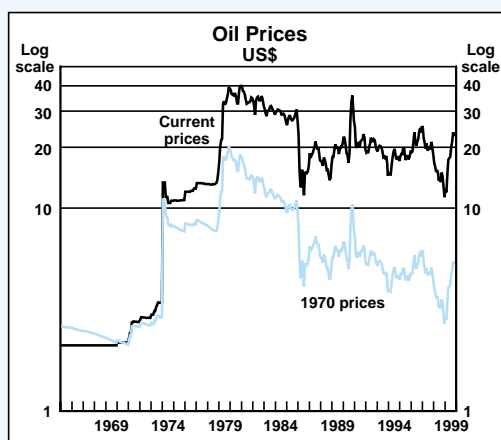


Box D: Oil Prices and Inflation

Oil prices have fluctuated widely in recent years. Since early 1999 the price of crude oil has nearly doubled to over US\$20 a barrel, returning oil prices to around their most recent peak, recorded in January 1997 (Graph D1). This sharp increase is around the same size as the increase that occurred in 1990, as a result of the Gulf War, but is considerably smaller than the increases that occurred in the 1970s. In real terms oil prices remain quite low, around the average level recorded since the mid 1980s.

Graph D1

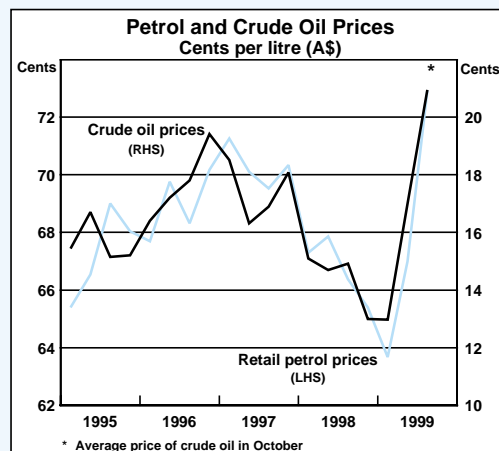


Both the cycle in world demand and variations in global oil production have contributed to the fluctuations in oil prices over the past three years. Since March 1998, oil-producing countries have been making efforts to restrict supply, but it was not until early in 1999, when world demand for oil began to pick up, that these efforts were successful. In March 1999, several oil-producing countries met and agreed to restrict the output of their state-owned oil companies, and in September they agreed to maintain these production restrictions. The effectiveness of these supply restrictions is evident in the sharp increase in oil prices that has occurred since March.

Changes in the price of crude oil affect domestic inflation directly, via their effect on the retail price of petrol, and indirectly, via increases in production costs more generally and increases in the prices of substitute goods.

The direct effect of increases in crude oil prices on inflation is easily identified. Increases in crude oil prices are first reflected in the refined petroleum price, and then in the retail price for petrol. Retail petrol prices have a weight of 4 per cent in the current Consumer Price Index (CPI). Pass-through of changes in crude oil prices to retail petrol prices occurs rapidly, with most changes being fully passed through within six months (Graph D2). The total percentage change in the retail petrol price, however, is always much smaller than the percentage change in the crude oil price. This is mainly because Federal and State excise taxes, which are levied per litre of petrol sold, account for a substantial proportion of the retail petrol price. (The excise rate is currently 43.5 cents per litre for unleaded petrol.) Other costs involved in wholesaling and retailing petrol, such as wages, storage and transportation costs, are also significant; movements in these costs are fairly stable over time. Overall,

Graph D2



this implies that only 20 to 30 per cent of the retail price of petrol is directly dependent on the price of crude oil.

Between early 1997 and early 1999, crude oil prices fell by around A\$13.50 per barrel. This contributed to an 11 per cent fall in retail petrol prices, and reduced the headline CPI by 0.5 per cent. Since early 1999, crude oil prices have risen by around A\$16.00 per barrel and retail petrol prices have risen by around 17 per cent. Based on past relationships, and assuming crude oil prices remain around the October average level, this increase in crude oil prices would directly increase the CPI by a little over 0.6 per cent. Most of this has been captured in the June and September quarterly movements in the CPI.

The indirect effect of higher oil prices on inflation is more difficult to identify and quantify. At an aggregate level, it is difficult to discern the effect of movements in oil prices on the underlying price level, although

some effect on the energy-intensive components of the CPI, such as transportation and travel, can be found. The prices of other sources of energy, such as coal and gas, also appear to be affected by oil price movements, though these relationships are quite loose, and depend on the state of world demand and stock levels. There is some evidence that higher oil prices have begun to contribute to higher production costs in some industries. The cost of materials used in manufacturing, for example, increased by 3.9 per cent between the March and September quarters 1999, largely reflecting the pick-up in oil prices. The latest NAB and ACCI-Westpac surveys also point to a modest increase in both actual and expected production costs. In the NAB survey, increases in production costs were strongest in the transport, storage and communications sector and the mining sector, both of which are relatively energy intensive. ✧