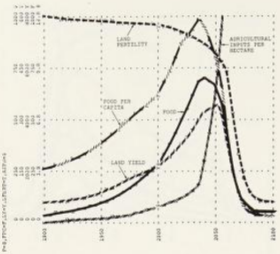
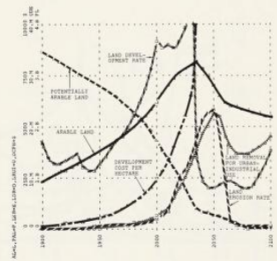


A. The behavior of land yields and food production

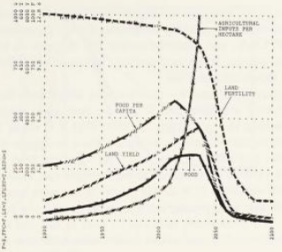


B. The behavior of arable land

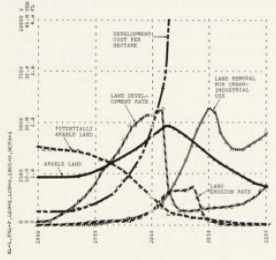
Figure 4-77 Run 4-8: sensitivity test with a 35 percent increase in the estimate of the value of potentially arable land total and a 50 percent increase in the upper limit of the land yield multiplier from capital

constrained to reproduce historical behavior. Further sensitivity tests in this sector were not adjusted to track historical behavior, for in each case the behavior mode was consistent with the standard run, Run 4-2.

Run 4-8 (Figure 4-77) shows a simulation in which both basic limits to food production, total land and land yield, are reestimated in an optimistic fashion. The



A. The behavior of land yields and food production



B. The behavior of arable land

Figure 4-78 Run 4-9: sensitivity test with a 25 percent decrease in the estimate of the value of potentially arable land total and a 25 percent decrease in the upper limit of the land yield multiplier from capital

total amount of potentially arable land available PALT is set to 4.35 billion hectares and the land yield multiplier from capital LYMC is set to the optimistic estimate shown in Figure 4-71. In this run, both land yield LY and arable land AL peak at higher values, allowing food production F to reach a higher value before its decline. Nevertheless, the decline is delayed by only about 10 years. The decline is more