This shift means that Boeing now knows that whatever it does, it will have to compete with Airbus and will therefore lose money if it chooses to produce. So now it is Boeing that will be deterred from entering. In effect, the government subsidy has removed the advantage of a head start that we assumed was Boeing's and has conferred it on Airbus instead. The end result is that the equilibrium shifts from the upper right of Table 1 to the lower left of Table 2. Airbus ends up with profits of 125 instead of 0, profits that arise because of a government subsidy of only 25. That is, the subsidy raises profits by more than the amount of the subsidy itself, because of its deterrent effect on foreign competition. The subsidy has this effect because it creates an advantage for Airbus comparable with the strategic advantage it would have had if it, not Boeing, had had the head start in the industry. For this reason, the argument for industrial policy based on imperfect competition is often referred to as the strategic trade policy argument.

## • Problems with the Brander-Spencer Argument: Information Requirements

This hypothetical example might seem to indicate that the strategic trade policy argument provides a compelling case for government activism. A subsidy by the European government sharply raises profits for a European firm at the expense of its foreign rivals. Leaving aside the interest of consumers, this clearly seems to raise European welfare (and reduce U.S. welfare).

In fact, the strategic justification for trade policy, while it has attracted a great deal of interest, has also come in for a great deal of criticism. The critics argue that to make practical use of the theory would require more information than is likely to be available. The problem of insufficient information has two aspects. The first is that even when looking at an industry in isolation, it may be difficult to fill in the entries in a table like Table 1 with any confidence. And if the government gets it wrong, a subsidy policy may turn out to be a costly misjudgment. To see this, suppose that instead of Table 1, the reality is represented by the seemingly similar payoffs in Table 3.

| Airbus<br>Boeing |   | Produce | Don't Produce |
|------------------|---|---------|---------------|
| Produce          | 5 | -20     | 0<br>125      |
| Don't Produce    | 0 | 100     | 0             |

Table 3: Two-Firm Competition: an Alternative Case.