4 The Impact of Scale Economies

The constant cost assumptions of neo-classical economics were never widely accepted as a characteristic of the real world, and the possibility that scale economies might be sacrificed as a consequence of an effective antitrust policy was always recognised by economists actively engaged in the industrial organisation field. Only in 1968, however (Williamson [84]), was the possibility of a welfare trade-off between the cost savings from scale economies and the loss of consumers’ surplus from market power formalised within a social welfare function framework. In so doing, Williamson restricted his analysis strictly to the case of mergers, which provided simultaneously cost savings on the one hand, but prices in excess of the competitive level on the other. Williamson’s analysis is easily extended to the case of the entrenched monopolist and the possibility of corrective antitrust, and in this sense it may be viewed as being generally applicable to the antitrust policy debate. The essence of the Williamson trade-off approach to the monopoly problem can be distilled from Fig. 2.

Fig. 2 depicts the case of a proposed merger which would introduce market power into a previously competitive market situation. In the pre-merger market, firms are supposed to produce on identical and constant average cost curves (short-run) which are represented in aggregate by $AG_1$. The competitive price $OP_1$ is identical with $AC_1$ (a normal profit equilibrium being assumed) and the competitive output rate is $OQ_1$. By contrast, the post-merger combine is supposed to produce on a lower, constant average cost curve (again short-run) depicted by $AC_2$, but to establish price not merely in excess of $AC_2$ but indeed in excess of $AC_1$ (i.e. price is higher

C. K. Rowley, *Antitrust and Economic Efficiency*  
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than in the competitive case despite the availability of scale economies). In such circumstances, a welfare trade-off is required between the loss of consumers' surplus due to the higher price (the shaded area $A_1$ in Fig. 2) and the cost savings gain to the producer (the shaded area $A_2$ in Fig. 2). In naïve terms, if $A_1$ exceeds $A_2$ the merger should be disallowed; if $A_2$ exceeds $A_1$ the merger should be encouraged.

![Diagram](https://via.placeholder.com/150)

**Fig. 2. The Williamson trade-off**

In fact, as Koo [41] has recently emphasised, even where the merger is allowed by reference to the social welfare function used by Williamson, the solution does not satisfy the necessary conditions for a Pareto optimum. For a social opportunity loss due to the inefficient use of the merged resources still remains. If the consumers were able to bribe, or the government continued to subsidise, the monopolist in the amount $ADCP_2$, the monopolist might well produce an output $Q_3$ and lower the price to $C$. This would yield the monopolist the same amount of profit as in the Williamson solution, while consumers' surplus would increase to $AFCP_2$, resulting in a net social