25. Kinked Demand Curve

$D^1$ including its dashed portion is the demand curve facing the firm if no other firms follow its price changes. $D^2$ including its dashed portion is the demand curve facing the firm if all other firms follow its price changes. These curves intersect at the prevailing price $p^0_x$ and quantity $x^0$. The marginal revenue curve in each case is drawn by connecting the vertical intercept of the demand curve with the point that lies half way between the horizontal intercept and the origin.

In the kinked demand curve model, the demand curve facing the firm consists of the solid portion of $D^1$ ($D^1$ for outputs up to $x^0$) together with the solid portion of $D^2$ ($D^2$ for outputs greater than $x^0$). The marginal revenue curve of that demand curve consists of the solid portions of $MR^1$ ($MR^1$ for outputs up to $x^0$) and $MR^2$ ($MR^2$ for outputs greater than $x^0$) combined with the vertical black line connecting them. Profit maximization occurs where marginal revenue equals marginal cost, that is, where the marginal cost curve intersects the black portion of the marginal revenue curve.