

Contribution to the *New Palgrave Dictionary*

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Countervailing Power

Countervailing power was a term coined by Galbraith (1952) to describe the ability of large buyers in concentrated downstream markets to extract price concessions from suppliers.

Galbraith saw countervailing power as an important force offsetting suppliers' increased market power arising from the general trend of increased concentration in U.S. industries. He provided examples such as a nationwide grocery chain extracting wholesale price discounts from food producers and large auto manufacturers extracting price discounts from steel producers.

The concept of countervailing power was controversial in Galbraith's day (see Stigler's 1954 criticism), and continues to be so today. Formalizing the concept is difficult because it is difficult to model bilateral monopoly or oligopoly, and there exists no single canonical model. Whether and how wholesale discounts to large downstream firms are passed through to final-good consumers is unclear. The concept has the controversial antitrust implication that horizontal mergers between downstream firms may be pro-competitive.

There are a number of theories explaining why large buyers obtain price discounts from sellers. A simple theory is that the cost of serving large buyers is lower per unit. Serving large buyers may involve lower distribution costs. For example, the supplier may be able to ship its product to a large buyer's central warehouse rather than having to ship it to the individual retail outlets owned by small buyers. Serving large buyers may involve lower production costs. For example, if the supplier's production function exhibits increasing returns to scale and the supplier serves one buyer at a time each production period, per-unit production costs will be lower when serving a large buyer.

Other theories involve more subtle strategic effects. A literature including Horn and Wolinsky (1986), Stole and Zwiebel (1996), Chipty and Snyder (1999), Inderst and Wey (2003),

and Raskovich (2003) considers a model in which a monopoly supplier bargains under symmetric information separately and simultaneously with each of a number of buyers. Each buyer regards itself as marginal, conjecturing all other buyers consummate their negotiations with the supplier efficiently. If aggregate surplus across all negotiations is concave in quantity, the marginal surplus from a transaction involving a large quantity is higher per unit than from one involving a small quantity. This higher per-unit marginal surplus for large buyers translates into a lower per-unit price. The aggregate surplus function would be concave, for example, if the supplier has increasing marginal production costs. Even if the supplier's cost function were linear, the total surplus function effectively becomes concave if the supplier is assumed to be risk averse as in DeGraba (2003) and Chae and Heidhues (2004).

Size discounts also emerge if large buyers' outside options are better. In Katz (1987) and Sheffman and Spiller (1992), for example, the larger the buyer, the more credible its threat of integrating backward and producing the good itself. Size discounts also emerge if the supplier's outside option is worse when facing a large buyer. In Inderst and Wey (2004), for example, if bargaining with a large buyer breaks down, it is difficult for the supplier to unload this large quantity on the other buyers since this involves marching down these other buyers' declining marginal surplus functions.

Size discounts also emerge if one departs from the bargaining model with a monopoly supplier and instead considers competing suppliers. In Snyder (1998), collusion is difficult to sustain in the presence of a larger buyer because the benefit from undercutting and supplying the buyer is greater. To prevent undercutting in equilibrium, suppliers collude on a lower price for large buyers. In Dana (2004) and Inderst and Shaffer (2004), by pooling their demands and

buying as a group from one supplier, buyers can increase the intensity of competition among suppliers of differentiated products.

Several papers have begun to examine the question of whether a downstream firm's countervailing power translates into lower final-good prices, using a model with competing downstream firms (Dobson and Waterson 1997, von Ungern-Sternberg 1997; Chen 2003). This work suggests that an increase in countervailing power can have the opposite effect, raising consumer prices and/or lowering social welfare.

Early empirical studies of countervailing power (see Scherer and Ross 1990 for a survey) took the standard structure-conduct-performance regressions (regressions of supplier profits or markups on supplier concentration using cross-sectional observations at the industry level) and added a buyer-concentration variable, often finding a significantly negative coefficient. Later intra-industry studies found more nuanced circumstances under which buyer-size discounts emerge. Ellison and Snyder (2002) and Sorensen (2003) observed size discounts in pharmaceutical and hospital-services markets only if there were competing, not monopoly, suppliers. In an experimental study, Normann, Ruffle, and Snyder (2005) observed buyer-size discounts only when the total surplus function exhibited a certain curvature, consistent with theory.

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