# 22 The Austrian theory of price

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**Introduction**

Prices are essential to the operation of markets. The prices that businesses ask for their products determine how much customers will buy. The prices offered for labor, land and capital goods determine both the allocation of resources among various uses and the distribution of income among society. Proper pricing is vital to a firm's profitability; pricing too high or too low can be fatal to an otherwise profitable business. Moreover, prices convey information; they signal the relative scarcity or abundance of many thousands of goods. It is unimaginable that a complex world economy could function without the work performed by prices (see Hayek, 1948).

Because of its primacy to markets, price formation has been a central concern of economists since the inception of their science. The labor theory of value as expounded by Adam Smith, David Ricardo and others attempted to explain why the prices of some goods are high and others are low. The inadequacies of the labor theory of value, and its replacement by marginal analysis, revolutionized the theory of price. Marginal analysis reversed causation between the prices of consumers' goods and producers' goods. In the labor theory, the value of labor determined the price of beaver; in the marginal theory, the prices of beaver pelts determine the wage of the trapper. The ultimate arbiter of wages and rents is the prices of consumers' goods and the prices of consumers' goods depend on the relative marginal utilities of the goods. If an additional unit of a good, such as diamonds, has a high value to the consumer, it commands a high price in the market; a good for which an additional unit has a low value to the consumer, such as water, commands a low price. Not only did marginal theory reverse the direction of causation, it brought the pricing of land, labor and capital goods under a single principle, now known as the marginal productivity principle.

The marginal revolution substantially improved the theory of price, but subsequent developments in economics unduly narrowed the scope of the theory. The increasing attention paid to competitive equilibrium, particularly in the post-Second World War period, relegated actual market prices, as opposed to their hypothetical counterparts in equilibrium, to a secondary place in economics. Economists could say a great deal about the way producers and consumers would react to given prices, but they could say very little about the way prices were formed and adjusted. This is most evident in general equilibrium theory.

**Stability analysis**

The existence proofs of a general equilibrium depend, inter alia, on producers and consumers maximizing their particular functions with respect to 'given' prices. 'Given', in this context, means that there is a single market price for each good, and that no one can change any price. Even if we accept, for the sake of argument, that given prices make sense for an equilibrium state, they create a problem for explaining how prices might adjust. If no one can change prices, how can they reach their equilibrium values?

General equilibrium got around this problem with the fictional device of an economy-wide auctioneer. This *deus ex machina* of economic theory called out a price for each good in the market, took buy and sell orders, calculated excess demand, and raised or lowered price according to whether excess demand was positive or negative. The primary question of price adjustment was whether prices would converge to their equilibrium values. This line of inquiry was known as stability analysis (see Arrow and Hahn, 1971, pp. 22, 322). Stability analysis had several pronounced shortcomings, the most notable of which was that price adjustment was not undertaken by buyers and sellers in the pursuit of their own self-interest. The fundamental motivating force of economic theory was absent from the theory of price formation. Stability analysis had an air of unreality about it; it seemed almost impossible to anchor the theory to the operations of actual markets (see High, 1990, pp. 23–6).

**Search theory**

Economic theory experienced a self-acknowledged 'crisis' in the 1970s. The crisis was precipitated by the appearance of 'stagflation', and the subsequent realization that macroeconomics was not integrated with microeconomics. General equilibrium theory was singled out for some heavy criticism, mainly because it ignored the problems of unemployed resources and inflation. One prominent economist even referred to general equilibrium theory as science fiction (see Clower, 1975).

Providing microeconomic foundations for macroeconomics became a prominent theoretical enterprise in the 1970s, and one of these foundations, search theory, looked like it might provide a more realistic theory of price adjustment. Search theory dropped the assumption of perfect competition. It allowed sellers to set their own prices, which would normally result in a price distribution for each good. Buyers would then search over the distribution in order to find more advantageous prices at which to trade. They would continue their search until the marginal costs and benefits of search were equal. Search theory had the advantages of allowing traders to set their prices and of incorporating self-interest into the search process (see Stigler, 1961; Alchian, 1970).

Nevertheless, search theory never really developed into a realistic explanation of price formation. The main obstacle to this seems to have been the postulate of a random distribution of prices over which agents searched. A random distribution was required in order for price searchers to calculate their marginal costs and benefits, but the kinds of knowledge required for randomness were inconsistent with the way in which markets provide information. Consider a worker searching over a group of employers for a higher wage offer. In order for the distribution of wages facing the worker to be random, she would have to know which wages were being offered, but she could not know which firm was offering which wage. Markets do not normally disperse information this way. Usually workers will learn of a wage offer and the company offering it at the same time, in which case the distribution of wages is not random (see High, 1983–4).

**Austrian theory**

Price adjustments in a market economy are set within a larger framework of institutions that have evolved over a long historical period. The most important of these institutions are money, monetary calculation, the division of labor and specialized traders. Menger first pointed out that an increasing division of labor and the evolution of money are mutually reinforcing developments in economic life. As more and more people specialize in production, it becomes increasingly difficult for each person to exchange what he has produced for what he wants to consume. Indirect exchange immediately helps to alleviate this problem, and ultimately leads to the acceptance of commonly accepted media of exchange, or money (Menger, 1892).

At the same time that economies develop the use of money, they also develop specialized markets for various goods. The same people who specialize in the production of, say, jewelry or clothing or foodstuffs will become specialists in exchanging these goods. They will establish trading posts and they will be alert to the prices at which these goods will exchange for money. The terms on which specialized producers will be willing to exchange depend on their past experience with market conditions for their products. Thus, from the beginning stages of markets, specialized knowledge of trading conditions is built into prices. Division of labor is accompanied by division of knowledge about supply and demand conditions in various markets. Already we can see how misleading it is to assume that a fictional auctioneer randomly calls out prices, or to assume that a price distribution is stable. These theoretical constructions ignore the experience and judgement that are built into market prices.

The emergence of money will facilitate a more minute and complex division of labor, for two reasons. First, money makes it much less costly to exchange specialized products. Second, money makes possible profit and

loss calculations. Specialized producers can purchase raw materials and transform them into products that are exchanged for money. The amounts of money expended on production can be compared with the amounts of money received in revenues. Producers can calculate whether it has been advantageous for them to engage in their particular forms of production and marketing.

As specialized production becomes more minute and complex, so does the knowledge necessary to carry out exchange. Producers, or specialists whom the producers hire, will familiarize themselves, not only with market conditions on the revenue side of the ledger, but with market conditions on the cost side as well. In deciding how much to offer for additional material or workers, the producer will carefully estimate the prospective revenues from such purchases. Thus wage and price offers in resource markets also reflect the seasoned judgement and experience of specialized traders (Mises, 1949, pp. 207–20).

There are two other elements of the market process that contribute to the judgement and experience that go into price formation. The first is the profit motive. Profit and loss calculations not only make it possible for a producer to tell whether he is using resources to advantage, they also give him an incentive to do so. If he offers too much or too little to hire labor, or if he prices his product too high or too low, the producer forgoes potential profit or perhaps even suffers loss. The second element that contributes to sound judgement in pricing is the selection process of profit and loss. Those who are skilled at estimating which products to manufacture, which resources to use and which prices to offer will prosper; their firms will succeed and the sphere of their influence will widen. Those who are poorer judges will struggle and perhaps fail; their firms will not grow and their judgement will be restricted to a relatively narrow sphere. Thus those who have relatively greater ability to judge market conditions, and hence to form accurate price estimates, will have relatively more influence in markets (Mises, 1952, especially p. 123).

Within this context of market institutions, it is possible to isolate pricing decisions and to study how prices will change under various assumptions. For example, the economist can assume that all producers of the same product charge the same price, but that the price is below its market-clearing level. Under these circumstances, producers are likely to discover that they can increase profitability by raising price, thus moving it towards its market-clearing level. Or the economist can assume that different producers charge different prices, even for the same good, and examine the likely movement of prices in this situation. With price dispersion, the self-interest of traders will generally, but not always, move prices towards their market-clearing levels. For examples of this kind of analysis, see Rothbard (1962, pp. 112–18, 123–33); Kirzner (1963, chapter 7) and High (1990, pp. 134–67). For a rigorous

mathematical examination of the conditions under which prices will definitely converge to an equilibrium, see Fisher (1983).

These kinds of exercises have analytical value. They are a definite improvement upon traditional stability analysis, where the assumption of perfect competition precludes traders from changing prices. In the Austrian analysis, price formation is endogenous to the market process; price movement is the result of self-interest. Austrian analysis is also an improvement on search theory; the assumptions about what traders know and can be expected to learn are much more realistic in Austrian theory. The analysis is not constrained by the postulate of a random distribution of prices. Finally, the Austrian theory of price adjustment shows how unlikely it is that market prices will be at their equilibrium levels. The assumptions that must hold in order to prove convergence are so stringent that only a fantastic leap of faith could bring us to believe that the market is usually in a state of general equilibrium. The theory of price adjustment is important in its own right: it is not a handmaiden to equilibrium theory. A cogent explanation of price adjustment is, in fact, the core of any realistic theory of the market as a process.

## See also:

Chapter 25: **Prices and knowledge; Chapter 20: Supply and demand; Chapter 4: Market process**; Chapter 21: Profit and loss

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