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What is the Value of Milk?

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Should milk be priced at $2.00 or $6.00 per gallon, or for that matter at any other price? What determines the value of milk? Recently at least one observer has stated opposition to the proposed price collar "compact plus" policy because it doesn't reflect the "full value" of milk. Well, when is milk undervalued?

Economics has another name. It is often appropriately called the theory of value. Over the past 200 years different economists have advanced different general economic or value theories. David Ricardo, in the early 19th century, proffered what is now called the Ricardian or Classical Theory of Value. In a classical economy prices are determined by the costs of production. Ricardo talked of three: rent for land, wages for labor, and profits for capital. Marx unsuccessfully tried to convince the world that there is one input, labor, and that all value comes from it: the labor theory of value.

Around 1890 a group of British economists from Cambridge and Oxford led by William Stanley Jevons and Alfred Marshall created the economic theory that is the basis for today's science. It is called the neoclassical theory of value or neoclassical economics. At its core is the concept of a market where suppliers offer their products at prices based on their cost of production (land, labor, capital), and consumers offer to buy those products based on their incomes and preferences for one product versus another (milk versus orange juice, or a vacation in the Caribbean).

Probing deeper into the neoclassical theory of value one finds that there is not one but several models of how a market can work to determine the value of a product such as

milk. One can have a competitive market where the price of milk is equal to the cost of producing it, i.e., a competitive rate of return on land, labor, and capital. One can have a monopoly market where the price is far above costs, and the monopolist earns the highest possible profit that can be squeezed out of consumers. One can have a monopsony in an input market. This is one buyer rather than many buyers of an input such as raw milk. That buyer sets a low price that exploits the fixed and immobile physical and human capital of farmers to earn the highest possible profit that can be squeezed out of farmers. One can have market channel firms that are monopolists and monopsonists at the same time. These firms increase profits by squeezing farmers and consumers at the same time.

The originators of the neoclassical theory of value realized all of these possible situations existed as early as 1890. It is more than coincidence that this is the date of the Sherman Antitrust Act–the anti-monopoly, anti-monopsony law, advanced and passed by farmers and their elected Congressmen. Farmers realized that they were being nicked when selling their products and when buying products by the trusts: the railroads, the oil trust, the beef trust, etc.

In the 1930's another generation of university economists led by Edward Chamberlin at Harvard and Joan Robinson at Cambridge realized that there is an "intermediate world" between competition and monopoly/monopsony. That is the world of markets when one has a few large sellers (oligopoly) and/or a few large buyers (oligopsony). The fundamental insight that these economists provided is the following. Firms in this "intermediate world" can devise pricing systems, price signals if you like, that allow them to permanently enjoy market prices and profits that are well above competitive levels without actually conspiring to fix prices and violating the antitrust

laws. Firms in highly concentrated oligopoly/oligopsony markets are not price takers like farmers or consumers. They have power over price, and they use it to profit above and beyond the profit available from a competitive market.

Let's get specific on these pricing practices and show how they influence the value of milk at the retail and farm level. In a recent *Boston Globe* article, a supermarket retailer asserted that it is "committed to remaining competitive" (Mohl, 2/1/ 2004). It matches the price of any other supermarket milk retailer. It won't be undersold! One can analyze this price conduct rule in an oligopoly. In fact Chamberlin in 1933 was the first to prove that it leads all firms away from competitive pricing towards monopoly prices. What this supermarket spokesperson calls competition is the exact opposite. It is a system of pricing that thwarts competition! Basically every firm knows that others will follow its price change. So where does a firm set the price–at a low level that just covers costs or at a high level that returns handsome profits? The answer is a no brainer.

Now let's look at processor and farmer prices in a channel dominated by one or very few large buyers. A recent front page *Wall Street Journal* gives several very concrete examples of how farmers have suffered in such markets including blueberry growers in Maine, and tobacco growers (Wilke). Consider a milk-marketing channel with a powerful supermarket buyer. That buyer can play one processor off against another to obtain a low price. If a processor has no alternative outlet for that milk (no other buyers to absorb that large volume of milk) then the power buyer can negotiate a price so low that it makes it hard or impossible for the processor to cover all costs including a competitive return to capital. The processor in turn is forced to go to the

farmers that sell him milk and negotiate a lower raw milk cost to keep him and the farmers in the good graces of the powerful supermarket buyer.

So what is the value of milk? The answer is that it depends on the structure of the markets where it is sold. There is no single intrinsic value of milk. Economics, however does have something to say about the value of milk. From the viewpoint of economic efficiency, which is the idea of getting the most output and the highest value from society's set of fixed inputs (land, labor, and capital), a competitive market economy is best. That's why we have and enforce antitrust laws. When antitrust laws fail to reign in non-competitive pricing, economists turn to market regulatory policies to improve market performance. In the Southern New England milk market today that means finding a policy that gives firms an incentive to raise raw milk prices and lower consumer prices.

There is another important economic justification for higher raw milk prices in New England. Modern economics recognizes another way that markets can fail. If there are externalities such as benefits to dairy farming that are not captured in the price of milk, such as open space, wild life habit, cultural and historical benefits, then there is a need to compensate the farmer for these non-market benefits to keep him in business.

This means that the proposed price collar policy (http://fmpc.uconn.edu, click on "milk price gouging") can attain two objectives when it raises raw milk prices. It thwarts the exercise of market power by retailers against processors and farmers, and it redresses the externality problem by getting added income from the market place and not from the public treasury and taxpayers. The policy kills two birds with one stone. One policy improves the economic viability of the rural economy that the dairy industry drives. Moreover the policy does it without taxpayer dollars. This sort of transfer of value from

consumers (urban and suburban residents) to farmers (rural residents) is a way to preserve the New England that all residents (urban, suburban, and rural) may want. Basically it is a political choice.

Some observers object to making such a political choice because, in their opinion, it subverts the market. In their view "the market" exists without input from politics. This simply is not how a market economy is organized. Our market economy depends upon rights and duties that are codified in our constitution and laws. No market or market economy exists independent of the law. The meaning of a contract is defined by the law. Competitive markets are preserved and promoted by the law. Regulation, other laws, are reserved for markets that are not competitive or impaired by externalities. Political and judicial choices in the courts are made on a regular, almost daily, basis to keep our economy and its markets operating in a fashion that serves the public interest. Our elected representatives determine what the public interest is. Basically how pricing works in our economy to determine the value of any product, including milk is a political choice. At this juncture economics has done its job and politics take over.

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Both of the above references are available on http://www.fmpc.uconn.edu
Click on "Milk Price Gouging" and scroll down.