John. R. Commons's Pricing Theory

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Abstract: In *Institutional Economics*, John R. Commons featured relative scarcity (law of supply and demand) and proprietary scarcity (withholding) as main factors affecting prices. Commons' pricing theory is unique in that it is explained by the historical development of capitalism and his original concepts of transactions. Relative and proprietary scarcity affects prices directly by bargaining transactions. However, efficiency (man-hour) affects prices indirectly by managerial transactions. In banker capitalism, the expected profit at a micro level and protection of efficiency such as patent law and monetary policy at a macro level have a great relationship with prices by rationing transactions.

Keywords: pricing theory, institutional economics, transactions, John R. Commons

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This study aims to understand the pricing theory by John R. Commons. His theories explained the collective actions requited to overcome challenges of capitalism, such as monopoly and depressions. Therefore, Commons' theories are profound, yet complex because they include the concepts of law, ethics, and psychology.

Recently, there has been an increased focus on the studies of institutional economics of

Commons. Glen Atkinson and Charles Whalen placed the basis of post-Keynesian institutionalism on the concept of "futurity" by Commons (Atkinson and Whalen 2011). Hiroyuki Uni analyzed the newly discovered manuscript (Commons 1927) and highlighted two issues: between 1927 and 1934, first, Commons expanded the concept of "proprietary scarcity" arising from control by the supply and demand sides, second, the "judicial transaction" became the "rationing transaction" (Uni 2014). This study focuses on the Commons' theory of price and its significance based on these previous studies.

Pricing Factors in Historical Development of Capitalism

Commons analyzed prices in Chapter 10 "Reasonable Value," section 7 "Collective Action" in *Institutional Economics* (Commons 1934) and stated that "scarcity," "efficiency," and "profit" as factors affecting prices. Commons studied these factors with historical development of capitalism. He said, "Capitalism is not a single or static concept. It is an evolutionary concept of three historic stages—'Merchant Capitalism,' 'Employer Capitalism,' 'Banker Capitalism'" (Commons 1934, 766). Table 1 shows historical development period of capitalism, pricing, and transactions by Commons.

At first, merchant capitalism, before the Industrial Revolution, arose from the extension of markets. At this stage, "relative scarcity" in the market, that is, the "law of supply and demand," affects the price. If demand exceeds supply, relative scarcity will arise and the price

Table 1. Historical Development of Capitalism and Pricing and Transactions by Commons

	Capitalism	Historical Period	Factors of Pricing	Transactions	Money
1	Merchant Capitalism	Scarcity	Relative Scarcity (Law of supply and demand)	Bargaining transactions	Metallic money
2	Employer Capitalism	Abundance	Efficiency and Proprietary Scarcity	Managerial transactions	Paper money
3	Banker Capitalism	Stabilization	Margins for Profit (Futurity) in addition to Scarcity and Efficiency	Rationing transactions	Credit money

Source: Compiled by the author

will increase. On the other hand, if supply exceeds demand, relative scarcity will fall and the price will decrease. Commons called this stage a period of "scarcity" (Commons 1934, 773). He thought the main transactions in this stage were "bargaining transactions," which transfer ownership of wealth by voluntary agreement between legal equals (Commons 1934, 68) and metallic money was the intermediation of trade. The principle of bargaining transactions relies on scarcity because these transactions do not occur during excess supply. The unit of measurement in the bargaining transaction is the dollars (Commons 1934, 66), that is, the price.

The next stage is employer capitalism after the Industrial Revolution. Commons called this a period of "abundance" (Commons 1934, 773), in which commodities are produced efficiently using new technology. In this stage, "managerial transactions" were prominent, which created wealth by commands of legal superiors. The principle of the managerial transactions is "efficiency" based on maximum output from minimum inputs. Efficiency is measured in man-hours (Commons 1934, 64-68). At this stage, the relative scarcity (law of supply and demand) affects prices directly, but Commons drew attention to the concept of "proprietary scarcity," which occurred when seller's "withhold" supply to maintain the price in the wholesale market. Commons differentiated proprietary scarcity from relative scarcity.[1]

The last stage is banker capitalism in which the credit system is extended. Commons called this stage a period of "stabilization" (Commons 1934, 773). At this stage, "profit" (the margin for profit) in addition to scarcity and efficiency is strongly correlated with price. The main transactions in this stage were "rationing transactions," which "apportion the burdens and benefits of wealth creation by the dictation of legal superiors" (Commons 1934, 68). At a micro level, rationing transactions correspond to "the activity of a board of directors of a company in making up its budget for the ensuing year" and the like. The macro level corresponds to "the activity of members of a legislative body in apportioning taxes" and "distribution of wealth" by "quantity rationing" or "price rationing" (Commons 1934, 68, 760). This connects to the decision of a profit level, which is the expected profit, through the decision of drawing its budget by board of directors of a company. Then, by rationing transaction, capitalism is controlled and market economy stabilized. So Commons claimed that the most important factor of stabilization was "the principles of futurity and narrow margins of profit" (Commons 1934, 788). He pointed out the importance of "expected events" termed "futurity" (Commons 1934, 738). As stated earlier, Commons considered factors of pricing by analyzing the historical stage.

Relations of Price and Commons' Concepts of Transactions

This section considers how the three kinds of transactions and factors affect prices. Commons said, "In a money economy, as in Menger's commodity economy, Demand and Supply cannot be measured directly, but the *effects* of their variations are measured. This measurement of effects is Price, so that price is the measure of the variable relations of Scarcity, and is the pecuniary equivalent of his marginal utility" (Commons 1934, 381). This does not refute the law of supply and demand, but considers that relative scarcity appears as price. However, this outcome depends on the bargaining transactions of sellers and buyers in a market.

According to Commons, bargaining transactions in a market constitute two sellers and two buyers. For example, when there are only two people in the market, which is a seller (S_1) and a buyer (B_1), the transaction tends to be like a robbery. If the seller has the strong bargaining power, the price will rise. On the other hand, if the buyer has the strong bargaining power, the price will fall. Then if there are four persons, that is, two sellers (S_1)・(S_2) and two buyers (B_1)・(B_2), there emerge a set of "actual" transaction and another set of "potential" transaction as alternatives (Commons 1924, 65-67). Therefore, bargaining transactions need to have a minimum of four persons. Furthermore, he believed that a fifth person, such as, historically, a judge, priest, chieftain, or an arbitrator, who has legal powers, was needed. Thus, "A transaction, then, involving a minimum of five persons, and not an isolated individual, nor even only two individuals, is the ultimate unit of economics, ethics, and law" (Commons 1924, 68). These bargaining transactions decide the prices based on relative scarcity.

How does efficiency of managerial transactions affect scarcity? Commons said, "This is what we mean by Capitalism, double process of creating use-value for others and restricting its supply so as to create scarcity-value. Hence capitalism, unlike the Marxian Communism, requires two units of measurement, the man-hour and the dollar" (Commons 1934, 284). He insisted that we could perceive scarcity as price and abundance producing use-value, which is, in fact, efficiency measured in man-hours. These affect the relative scarcity, which is the law of supply and demand by the managerial transactions.

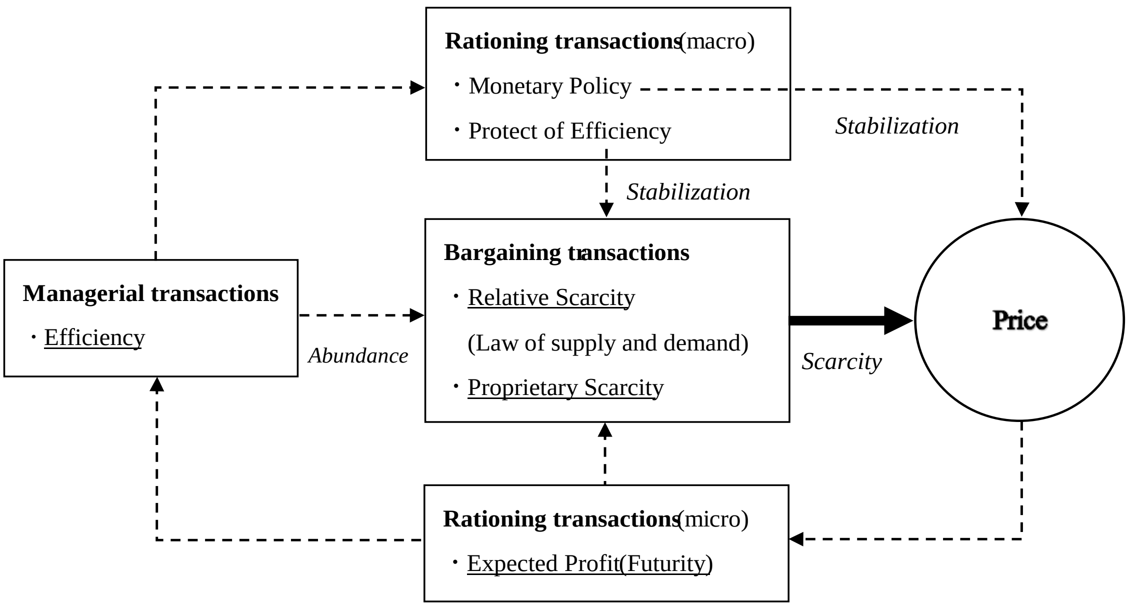
Abundance is achieved by managerial transactions based on the principle of efficiency. We can perceive it as quantity. If abundance increases, relative scarcity will decrease. If abundance decreases, relative scarcity will increase. These changes will affect the prices, however, this is not all. Proprietary scarcity will increase if a supplier "withholds" the supply to the market. Commons explained proprietary scarcity as a historical shift from producing power to bargaining power.

> In all of these cases may be seen, in varying degree, a historical shift from concerted action in order to increase the production of wealth, highly favored in the past by the economists and courts, to concerted action in order to restrict the production of wealth, highly disfavored by them in the past. For, it is the shift from producing power to bargaining power, which, when authorized by law, becomes reasonable restraint of trade (Commons 1934, 346).

Figure 1 confirms the past trend, that is, price is decided by relative scarcity (the law of supply and demand) by way of the bargaining transactions. However, abundance resulting from efficiency by way of the managerial transactions affects relative and proprietary scarcity.

Finally, this study considers what affects price during a period of stabilization. As seen in the previous section, rationing transactions are important to apportion the burdens and benefits about creation of wealth in this stage. Rationing transactions work by connecting the concept of "futurity" of "expected events." The board of directors in a company estimates the level of "the margin for profit" (current net profit), which is the expected profit. These

Figure 1. Relations of Price and Its Factors in Commons' Institutional Economics[3]



Source: Compiled by the author

estimates affect production planning and pricing, namely, the managerial transactions and the bargaining transactions. Commons elucidated profit maximization by producers as follows.

> Thus, producers can enlarge their profits in three directions: first, as *sellers* by raising the prices of their products; second, as *buyers* by reducing the prices paid to others for materials and labor; or, third, as *producers* by increasing their efficiency. (Commons 1934, 797)

The first and second methods affect prices by bargaining transactions. The first method can increase proprietary scarcity by withholding supply, or rise the price by using bargaining power if one is in a stronger position than the opponent. The second method can decrease the relative scarcity by restricting demand, or decrease the price by using bargaining power if one is in a stronger position than the opponent. The third method can produce many things from a few inputs by managerial transactions, that is, the method can increase abundance by improving efficiency (man-hour). If the price and cost do not change, you can maximize profit by increasing quantity. If the board of directors aims at profit maximization, rationing transactions affect the bargaining and managerial transactions. As shown in Figure 1, the connection between the rationing transactions at the micro level and the bargaining and managerial transactions can affect the price. These are the three kinds of transactions as described by Commons and the factors affecting prices.

Who Should Get the Results of Efficiency?

Commons states, in *Institutional Economics*, "Yet while prices are institutional and exchange-values are 'real,' prices are very real in the capitalistic sense—they determine who shall get the results of efficiency" (Commons 1934, 792). He stated as follows.

> The answer to the political and ethical question would then seem to be, Every person seeking his purely selfish increase of profits or wages should get his largest gain as a

> producer through increasing his efficiency, not as a seller gambling on the rise of prices, and not as a buyer gambling on the fall of prices. (Commons 1934, 800)

Increasing prices as a seller leads to the increase of gross sales by means of the rise of a commodity price in case of a company and the increase of the income by the rise of wage level in case of a laborer. On the other hand, lowering prices as a buyer leads to the reduction of costs by the fall in price of investment goods in case of a company and the improvement of living standards by the fall in price of consumers goods in case of a laborer. However, a company is not only a seller of a commodity, but also a buyer of raw materials. A laborer is not only a seller of a labor power commodity but also a consumer. Then, the results would be offset when they pay higher prices as buyers, even if they can earn money at high prices as sellers. Therefore, Commons insisted that they should not increase their gain by these methods, but increase their gain by improving their efficiency.

He judged that reducing prices was not appropriate because it deprived producers of their gains and vice versa, that is, raising prices was not appropriate because it deprived consumers of their gains. In other words, he recommended stable prices. In particular, he believed that increasing efficiency through use of the new technology and brands guaranteeing high quality should be protected by law. That is, he insisted that the government should control a law of supply and demand to secure the profit of a producer, who adopts new technology to improve efficiency, by the patent law and the protection of brand. Commons said, "At first they give all the gains in efficiency to the producer. Then eventually they give all the gains to the buyers. The patent law do this by controlling the 'law' of supply and demand in three ways" (Commons 1934, 802). He thought of both securing the gain of inventors as producers and securing the gain of consumers.

Efficiency of the new technology and the brand are "intangible properties," and so the patent law and protection of the brand means to protect the "intangible properties" by a nation. Figure 1 shows that efficiency backed by new technology at a micro level, and protection of efficiency by rationing transactions at a macro level, leads to the "stabilization" of bargaining transactions, hence maintaining the price and protecting the interest of inventors. Concerning "stabilization" at the macro level, Commons believes that worldwide stabilization of the average purchasing power of money, that is, of the movement of prices (Commons 1934, 804) is needed. This leads to proper control of general prices to protect intangible property such as patents and brands. Commons had focused on the role of money from his early times and thought of proper control.[2]

According to Commons, central banks frame monetary policy for public interests prior to private interests. However, Governor Benjamin Strong of the New York Reserve Bank discovered the powerful regulative influence of open market operations. This led to a substitution of private purpose for public purpose (Commons 1950, 260). As Véronique Dutraive and Bruno Théret argued, this situation is that the political factors, which have more of a public purpose, is subordinate to the economic factors, which have a more of a private purpose, consistent with the model of banker capitalism and inconsistent with the reasonable capitalism of Commons (Dutraive and Théret 2013, 108). Therefore, according to Commons, we should safeguard public interest by stabilizing the prices through macro monetary policy and protection-efficient producers' profits. Figure 1 shows rationing transactions at a macro level affects price stabilization.

As stated earlier, Commons thought price should be stable, because economic efficient agents at the micro level can benefit. To attain that, the government should intervene in pricing through policy and law. Furthermore, he insisted on a worldwide stabilization of the average purchasing power of money, that is, the movement of prices.

Conclusion

Commons' pricing theory includes not only economic factors but also historical and ethical factors. The theory is closely related to the concepts of transactions in addition to historical analysis. Commons focused on the concept of "efficiency" and the original "scarcity" at the micro level before the Great Depression of 1927 (Commons 1927). However, after the Great

Depression, he insisted on price stabilization by analyzing price movement at a macro level, in addition to the profit margins (Commons 1931). In *Institutional Economics* (1934), he emphasized on the importance of the economic stabilization policy that includes distribution of the gains resulting from efficiency. Commons' pricing theory is a remarkable institutional economics theory that includes protection of intangible property such as patent and brand, particularly in modern economy, which has several new technologies at the micro level and stabilization or problems of distributions at the macro level.

Footnotes

1 Uni explained that the concept of "proprietary scarcity" extended from 1927 to 1934. In the 1927 manuscript, this concept meant only the control of supply by sellers. In 1934, this concept expanded to include the both control of supply and demand for the sake of public welfare and public necessity (Uni 2014, 82).

2 See (Commons 1893a; 1893b).

3 As in previous research, we can see cumulative causation, which acts on a micro-level effect economy on macro level and economic stabilization policy on macro level, especially money policy, affecting pricing by micro economic agents. See Uni 2014.

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