## MISESIAN ECONOMICS AND THE RESPONSE TO A PRICE CHANGE

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mainstream objection to Misesian economics is that one cannot derive the income effect of a price change from the Misesian pure logic of choice, and therefore that Misesian theory is incapable of explaining the behavior of individuals who respond to a wage decrease by working more. Pascal Salin, in an article in the Review of Austrian Economics (1996), counters this objection by denying the existence of the income effect and the possibility of a backward bending labor supply curve. In contrast to Salin, Murray N. Rothbard (1962) acknowledges the possibility of a backward bending labor supply due to the income effect of a wage change. Rothbard, however, does not show how this outcome can be derived from the Misesian pure logic of choice.

It could be that Rothbard's statements on the labor supply are merely an ad hoc addition to Misesian economics, and that Misesian theory cannot explain why more labor may be forthcoming at a lower wage. But that is not the case. This note will show that the possibility of a backward bending labor supply can be derived from the Misesian pure logic of choice, and therefore that it is Rothbard's, and not Salin's, position on labor supply that is consistent with Misesian theory.

For simplicity, consider an individual who consumes only two goods, bread and leisure. Let this individual obtain bread only by supplying labor, and assume that initially he faces a constant wage of one loaf of bread per hour of work. Given this trade-off between bread and leisure, suppose that he chooses to supply eight hours of work per day, and therefore to have a daily consumption of eight loaves of bread and sixteen hours of leisure.

Let the wage now fall to half a loaf per hour. In Salin's eyes, this means that the opportunity cost of leisure has decreased, and that the logic of choice implies that our individual must choose to consume more leisure, and therefore to supply

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<sup>&</sup>lt;sup>1</sup>This paper employs the term Misesian rather than Austrian because it deals with Misesian theory, and there are economists that are labeled Austrian who do not strictly adhere to Misesian theory.

fewer hours of work per day. But his analysis of what happens when the wage falls is contrary to Misesian theory. It treats the cost faced by a decisionmaker as something that exists outside of his mind, and that can be objectively measured in units by others.<sup>2</sup> The amount of bread that our individual must give up to consume leisure has, of course, decreased. But the opportunity cost of consuming an additional unit of a good is not the physical amount foregone of another. It is instead the subjective value to the decisionmaker of what he has to give up to consume it.

A core problem with Salin's analysis is that it treats the wage fall as if it had an effect only on the rate at which leisure can be converted into bread. In Salin's view, the wage fall alters the individual's marginal valuation only, indirectly, by inducing an exchange. He fails to see that the wage fall can also alter the subjective marginal valuation through the decrease in the individual's consumption opportunity set. A wage change alters both the marginal and the average return to labor, and therefore its effect is equivalent to a combination of a ceteris paribus change in the market terms of trade and a ceteris paribus change in the consumption opportunity set of the decisionmaker.

A ceteris paribus change in the terms of trade that allows the individual to consume the same amount of both goods as before, can affect the marginal valuation only by inducing him to trade units of one good for units of the other. In contrast, a change (decrease or increase) in the individual's consumption opportunity set, holding the terms of trade constant, can (directly) affect the subjective marginal valuation by altering the amount that he can consume of a good, holding constant his consumption of the other. This ceteris paribus change in the consumption opportunity set alters the purchasing power of the individual, and most economists will refer to it as a change in income. Since this change can alter the subjective marginal valuation, it can induce the individual to modify his behavior until a new balance is established between his marginal valuation and the market terms of trade. Most economists would refer to this adjustment as the income effect. Salin may want to call it something else, but a different name will not alter in any way the implications that follow from the pure logic of choice.

Prior to the fall in the wage from one to half a load of bread, our individual had chosen to consume eight loaves of bread and sixteen hours of leisure. At that mix of bread and leisure, his subjective marginal valuation of bread in terms of leisure must not have been significantly different from the implicit leisure price of bread. Otherwise, he would have chosen a different mix.

The fall in the per hour wage increases the implicit leisure price of bread, and contracts his consumption opportunity set since now for any given amount of leisure consumed, he cannot consume as much bread as before. If our individual

<sup>&</sup>lt;sup>2</sup>The subjective nature of cost is a core point of the Austrian tradition. In contrast mainstream economists frequently fall in the error of treating cost as something objective, that can be observed and measured by the economic analyst. See Buchanan (1969).

were to continue to work for eight hours, he would be able to consume only four loaves of bread instead of the original eight. It follows from the principle of diminishing marginal utility, that bread's marginal utility must be higher, given the same amount of leisure, at four loaves than at eight.<sup>3</sup> Therefore, at this lower amount of bread and same amount of leisure, his valuation of an additional unit of bread in terms of leisure could be greater than before.

In fact, his marginal valuation of bread in terms of leisure must now be greater than before, unless one assumes that his marginal utility of leisure is, ceteris paribus, inversely affected by the amount of bread, and that the magnitude of that assumed inverse effect is at least enough to offset the increase in bread's marginal utility. These assumptions are not incompatible with the axioms of the pure logic of choice.<sup>4</sup> Therefore, the logic of choice does not allow us to conclude that the marginal valuation of bread in terms of leisure must definitely be greater, for our individual, at the lower quantity of bread.

For the purpose of this note, however, it is enough to have shown that our individual's marginal valuation of bread can increase with a fall in the wage. It is logically possible then for his valuation of an additional unit of bread in terms of leisure to increase by more than the increase in the amount of leisure that he must give up to obtain it. Suppose that this is what happens to our individual when the wage falls from one to half a loaf of bread per hour. Since his subjective marginal valuation of bread is now higher than the new and higher implicit leisure price of bread, the Misesian pure logic of choice implies that he will choose to sacrifice some leisure in order to consume more than four loaves of bread. Hence, he will supply more labor at the lower wage.

This note has shown that the possibility of the income effect of a price change is implied by the Misesian pure logic of choice. This note has not assumed that our individual must consume more than four loaves of bread to survive.<sup>5</sup> No ad hoc assumption has been employed. Instead, the possibility of a backward bending labor supply has been logically derived from the subjective nature of value and the principle of diminishing marginal utility. Thus, it is clear that Salin's views on the income effect of a price change are wrong. It is Rothbard who is correct and consistent with Misesian economics.<sup>6</sup>

<sup>&</sup>lt;sup>3</sup>The principle of diminishing marginal utility is derived in the Misesian pure logic of choice from the proposition that additional units of a good are used to satisfy less urgent wants.

<sup>&</sup>lt;sup>4</sup>Most economists would dismiss these assumptions since they believe, based on introspection and observation, that leisure is a normal good. But the pure logic of choice is silent on the question of how the demand for one good is affected by a change in purchasing power.

<sup>&</sup>lt;sup>5</sup>This assumption is neither necessary nor sufficient to get a backward bending labor supply. The only logical conclusion that follows from this assumption is that either the individual's marginal valuation of bread exceeds its implicit leisure price or he will choose to die.

<sup>&</sup>lt;sup>6</sup>One can only speculate as to why Rothbard did not show how he had reached his position on the labor supply curve. A simple and reasonable explanation, given Rothbard's extraordinary logical mind, is that he felt no need to prove something that followed so clearly from the subjective nature of value and diminishing marginal utility. It is easy for a logical mind not to see that others, less logical, won't see what is obvious.

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