

April 22, 2004

## Identifying the Austrian Trade Cycle in the Historical Data

The Austrian theory of the trade is a logical proposition, like the law of demand. If the conditions stated in its assumptions are present in the real world, and if only those conditions are present, the conditions that are deduced will occur in the real world. The problem of identifying the Austrian trade cycle in the historical data refers to the fact that the conditions stated in the assumptions are never the only conditions present. Indeed, in 20th century data that seem to contain a trade cycle, there are so many other conditions present that the trade cycle is only one of many parts to the explanation of the data. In some cases, the other conditions seem responsible for historical data that, without further investigation, might lead one to believe that the Austrian trade cycle is not present at all. It may be correct to say in some cases that the Austrian theory has such little relevance to the conditions of the time that one would be better off neglecting it, lest one fail to deal with the more important conditions needed to explain the historical data. This does not mean that the theory is wrong in any sense but only that it is not as relevant as other factors and that relying on it may lead one away from considering the other factors. The same can be said of the law of demand when the “other things equal” condition is violated.

The purpose of this essay is to deal with one observable phenomenon that appears to contradict the conclusions of the theory. It is the buildup of inventories of consumer goods during the contraction phase of the cycle. The goal is to show the meaning of the deduction that there will be a shortage of consumer goods that have short periods of production and short durability by giving an example. The example compares two industries. The first is a long period-of-production consumer good that is highly durable. The second is a short period of production consumer good that is perishable.



### **On the Logic of the Austrian Theory**

The modern, Misesian Austrian theory of the trade cycle, as expressed in his *Human Action* (1966) is based on the simple proposition that, under the conditions specified in the definition of the pure market economy, individuals acting in the role of the entrepreneur function to identify and utilize resources in an effort to satisfy consumer wants. Those wants exist in a time dimension. So the entrepreneurs must allocate their efforts and the resources they control to different projects that they expect to yield goods and profits at different future times. The procedural problem faced by an economist who aims to determine the relevance of the Austrian theory to a particular historical or policy situation is twofold. First, he must try to map the time structure of production so that he can distinguish the goods of the various orders. Second, he must identify the various complicating factors that would render the simplifying assumptions of the theory inadequate for dealing completely with the reality perceived by actors. These factors are diverse and include the weather, wars, government policies toward the market economy, and expectations about inflation.

The aim of this brief essay, as described in the second paragraph of this essay, is to help with the first problem. To do this, it will try to deduce the changes caused by an increase in a quantity of money via the loan market in two different industries. The first industry has a good that requires a long period of production of time to produce the final consumer good, which is durable. Thus the “period of provision” in Mises’s terms is very long (1966: 493-9). The second has a good that requires only a short period and is perishable. Regarding the complicating factors, we make assumptions that render them impotent. Specifically, we assume that the central bank increases the quantity of money by permitting increased loans. To simplify, we assume that no one anticipates this and that no one can predict in advance what its effects will be even after they find out about the policy. We also assume, for simplicity, that the central bank’s intervention was only a one-shot affair. Finally, we assume that the social, political, and material environments are constant. We now consider the two industries.

### **The Housing Industry**

We begin with the good that has a long period of provision. For illustrative purposes, we say that a new house fits into this category. We further assume that the period of production can be lengthened and that a lower rate of interest would give house suppliers an incentive to lengthen the period.

The lower market rate of interest is a signal to house suppliers that long term projects (goods with long periods of provision) started today can be financed at a cheaper rate. They see that they can borrow money at a lower rate today and *they also believe that they will be able to borrow it at lower rate through the indefinite future*. They do not know and do not care to predict the Austrian trade cycle. They are not economists. They use today's rates to make predictions about future rates.<sup>1</sup>

With the newly-borrowed money, they aim to begin building new houses. To do this, they bid workers and other needed resources away from other industries. Thus, there is an increase in pay for the resources used to produce houses, including construction workers.

### **The Fast Food Industry**

For the good with a short period of provision, consider the supply of fast food. Shortly after the central bank's action, the costs of supplying fast food rises, mainly because of the increased opportunities for fast food workers to receive higher pay in, for example, the house construction industry. Facing higher per unit costs, fast food suppliers raise their prices.

The change in relative prices changes the way that consumer-savers allocate their money. Because the price of fast food has risen, they buy less. They would buy more houses if they could.

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<sup>1</sup>To assume otherwise would violate our assumption about inflationary expectations.

However, the houses take a long time to produce. Whether consumer-savers as a whole would save more or less depends on the specific preferences of consumers.

For convenience, we use the term "first round effects" to refer to these changes in the interest rate and in the prices of resources, houses, and fast food. The effects are caused by the change in resource appraisals of entrepreneurs due to the lower market rate of interest.

### **Second Round Effects**

We can use the term "second round effects" to refer to the changes that occur after the new money gets into the hands of individuals in their role as consumer-savers. We begin our discussion of second round effects by recognizing that the income receivers of the first round are the consumer-savers of the second round. Since those income receivers receive all of the new money plus what the money they had previously received, their spending and saving rise more or less proportionately with the increase in quantity of money. Their demands for each of the separate goods rises proportionately and their supply of loanable funds rise proportionately. (Of course, the proportion would change to some degree because there has been a redistribution of income. Moreover, preferences change over time. But these changes ordinarily have minor importance.)

### *The Loan Market*

Consider first the effects on the loan market. As mentioned, we assume that the central bank's intervention is a one-shot affair. Accordingly, the supply of loanable funds in the second round comes entirely from the consumer-savers, who maintain more or less the same proportion between their spending on consumer goods and saving. Since their money income has increased by approximately the same per cent as the per cent increase in the quantity of money, their supply of loanable funds rises by

approximately the same percent. In the first round, all of the new money entered the loan market because that is where the central bank put it. However, in the second round only part of the new money enters. Only the proportion that consumer-savers ordinarily save enters.<sup>2</sup> The supply of loanable funds falls.

The demand for loanable funds also rises. This is because when suppliers of consumer goods begin to experience increases in demands for their products, they immediately begin to bid against each other for the limited resources. Their bids rise to more or less the same amount as they were before the increase in the quantity of money plus a per cent that is more or less equal to the per cent increase in the quantity of money. They need funds to make all of these bids.

Since there is a more or less equivalent rise in demand and supply of loanable funds in relation to the demand and supply before the central bank's intervention, the rate of interest goes more or less back to where it was before the central bank intervened in the first round.

### *Housing*

The house suppliers are surprised by the higher interest rate. As before, they adjust by changing their plans to build new houses. They reduce their demands for resources. Relative resource prices, including the pay to construction workers, fall. The resource market in the housing industry is further effected by the addition to inventory that occurred when the rate of interest was low. Entrepreneurs started new houses but they now regard the houses as unprofitable to complete. Although some of the capital that was produced in order to start the new houses will be abandoned, other of it will be transferred to other uses, thereby adding to the supply of that particular kind of capital and reducing its price. This kind of change may lead builders to reduce employment below what it was before the increase

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<sup>2</sup>It is possible that savers would have reacted to the lower interest rate in the first round by reducing or expanding their supply of loanable funds. This depends on the specific time preference of the consumer-savers. We assume for simplicity that there is no change in their supply of loanable funds in the first round due to the central bank's intervention.

in the quantity of money. The extent of this effect depends on the convertibility of capital (Mises, 1966, 503). The greater the convertibility of capital, other things equal, the greater the unemployment.

### *Fast Food*

Now we turn to the fast food market. The money demand for fast food rises due to the increase in incomes. In the meantime, the reduced real demand for workers in the construction industry reduces the opportunity costs of supply in the fast food industry. The increase in demand and increase in supply lead fast food entrepreneurs to increase output.

We should keep mindful of the increase in absolute prices. Because more money is in circulation, the absolute prices of both new houses and fast food will be higher. And so will the absolute prices of the resources used to produce them. Both fast food workers and construction workers will earn higher money incomes.

### **Shortage of Consumer Goods During the Boom**

What can we say, now about the infamous "shortage of consumer goods" during the "boom period?" First, we have to realize that by consumer goods we mean goods with short periods of provision. In our example, this was fast food. In what sense was there a shortage of fast food? We can find the answer by focusing on the fast food entrepreneurs. In the first round, they had reduced their work force and raised prices when wages rose in the housing construction industry. When demand rises in the second round, but before they hired additional workers released by the construction industry, they would be short of fast food. The price of fast food rose.

The shortage of consumer goods during the boom refers only to the deduction that, in the second round, employers in fast food perceive more or less the same profit opportunities that they perceived

before the increase in money. Until they respond to these perceptions by increasing the output of food, there would be a shortage of fast food, prompting an even higher increase in the price of fast food in the shorter term.

### **Remarks on the Procedure Used to Illustrate the Austrian Theory**

As one can see, to give even these simple examples requires a meticulous and detailed description of the sequence of events. Moreover, it requires making a number of assumptions that may not be realistic. Of special significance are the assumptions about expectations in light of the central bank's monetary expansion.

It would be possible to represent all of this with a mathematical general equilibrium model. The reason we can do this is that our assumptions have ruled out real entrepreneurship. The behavior of the entrepreneurs we described were deducible from the assumptions of our image. We disregarded real entrepreneurship – distinctly human action under the conditions of the market economy. It would also be possible to represent the two markets with graphical models. For those familiar with these two types of languages, this might be helpful. However, given the number and importance of the simplifying assumptions, the wisdom of doing so is not evident.

### References

von Mises, Ludwig (1966). *Human Action: A Treatise on Economics*. Chicago: Henry Regnery Company.

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## **Abstract**

This essay presents a model of the effects of an increase in the quantity of money introduced through loan markets under rigid assumptions. It traces those effects through loan markets and resource markets. Its main contribution is its focus on two different consumer goods industries: a durable good industry with a long period of production and a perishable good industry with a short period of production. It is especially concerned with the theory's deduction that there will be a shortage of the latter good during the contractionary phase of the cycle.

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