

Study Guide to *Human Action* by Robert P. Murphy

Chapter XX. Interest, Credit Expansion, and the Trade Cycle

Chapter Summary

1. The Problems

The *neutral rate of interest* is the hypothetical, single rate of ordinary interest—i.e., the rate of markup on consumer goods compared to their factors of production—that would prevail in the imaginary construction of the evenly rotating economy. In the real world, there are different implicit rates of interest in various lines of production, because people cannot perfectly forecast the future.

We recall that money cannot be neutral; changes in the supply of money will not raise all prices uniformly. This driving force of money can influence the determinants of the ordinary rate of interest, meaning that new infusions of money can redistribute wealth so that the (new) rate of discount on future goods is different from what it was on the eve of the cash infusion. In addition to this influence, however, is a particular disturbance that occurs when new money enters the economy through the loan market. This *credit expansion* is responsible for the trade cycle, or what is nowadays called the business cycle.

2. The Entrepreneurial Component in the Gross Market Rate of Interest

The actual gross rate of interest quoted in a loan contract reflects not merely the pure rate of ordinary interest (due to time preference) but also an entrepreneurial component, reflecting the lender's forecast of future conditions. There is no such thing as a truly safe investment. In a sense the lender is a partner with the entrepreneur who borrows his funds.

3. The Price Premium as a Component of the Gross Market Rate of Interest

If money were neutral, it would be conceivable to imagine a neutral rate of interest, so long as there were no deferred payments. With no deferred payments—i.e., no loans or other contracts stipulating specific sums of money to be paid on future dates—any cash-induced changes in the purchasing power of money would affect all lines of production equally. The entrepreneur who bought wheat in order to sell bread would earn the same gross interest rate as the entrepreneur who bought grapes in order to sell wine, because (assuming the neutrality of money) any sudden change in prices would affect all commodities equally and at the same time.

However, if we allow for deferred payments such as loan contracts, we must assume more than the neutrality of money in order to achieve a neutral interest rate. We must further assume either of the following: (1) the principal of the loan is adjusted with the (uniform) increase or decrease that the neutral money has generated in commodity prices; or (2) the principal does not adjust, but the rate of interest is adjusted by a positive or negative "price premium" to reflect the rising or falling prices. If we make the (unrealistic) assumption of a neutral money, and then supplement it with either of these additional provisions, we can also imagine a neutral rate of interest.

Of course, in the real world, money cannot be neutral; it has a driving force of its own. Lenders and borrowers naturally do their best to forecast changes in purchasing power. If people generally expect rising prices, the gross market rate of interest will be higher. Yet because

additional quantities of money affect particular prices in unpredictable patterns, the adoption of positive (or negative) price premiums cannot produce neutral interest rates.

4. The Loan Market

At any moment, there are different gross rates of interest implicit in the price structures in various lines. Because people err in their anticipation of the future, entrepreneurs in one branch will earn a higher rate of return than their peers in a different branch. The market process tends to equalize the net rates of interest (i.e., the component of the gross rate that excludes the entrepreneurial component and the price premium) in various lines, bringing them all into conformity with the originary rate of interest, which corresponds to the subjective discount people place on future goods. This equalization is never achieved, however, because during the process new changes occur that move the target, as it were.

As has been demonstrated in previous chapters, market prices enable the entrepreneurs to engage in economic calculation. Those who earn profits have done a better job deploying the scarce means of production towards satisfying the consumers, compared to those entrepreneurs who suffer losses. In this context, the crucial function of the market interest rate is to coordinate the *duration* of production processes. Because of time preference, it makes a difference to the consumers whether the employment of certain resources will yield satisfactions next week, or whether the entrepreneur who uses up these inputs won't be able to deliver consumption goods for several decades.

It is the market interest rate—or more accurately, the whole array of various interest rates on different types of loans—that guides the entrepreneurs in embarking on production processes that correctly reflect both the consumers' patience and the supply of capital goods that previous savings have made available. If people lower their time preference—i.e., if they reduce their discount on future goods—then they will save more and interest rates will fall. At the lower rate, entrepreneurs will find that particular projects are now profitable, and will lengthen the production structure, absorbing the additional savings. When the finished consumer goods finally become available in the future, people will be materially richer, reflecting the higher incomes earned by those who increased their saving at the start of the process. This prosperity is completely sustainable and reflects the general progress of a capitalist society.

However, if the gross market rate of interest is distorted due to changes in the money supply, then this crucial signal may mislead entrepreneurs. In particular, if new money first enters the economy through the loan market, then the gross interest rate will fall and encourage entrepreneurs to expand their activities. This is a mistake on their part, however, because people's time preferences haven't changed and they haven't saved accordingly. The boom that sets in will be unsustainable, and the prosperity will be illusory.

5. The Effects of Changes in the Money Relation Upon Originary Interest

Changes in the supply of and demand for money can have "real" effects, and in particular they can affect the originary rate of interest. Many writers focus on a certain possibility called *forced saving*, in which an infusion of new money redistributes income from a segment of the population who do not save much into the hands of those who have a higher propensity to save. These writers thus claim that inflating the money supply can have the beneficial consequence of additional "real" savings and capital accumulation.

There are several flaws with this idea. For one thing, it is not a praxeological law, but only a possible historical regularity. A more serious objection is that it ignores the tendency of inflation to cause *capital consumption*, where people are fooled by rising prices into thinking they are wealthier than they really are, and consequently they raise their consumption inappropriately.

This illusion can persist temporarily, because resources can be devoted to the production of present goods rather than to maintaining the stock of capital goods. The situation is analogous to a farmer killing his last chickens and frying all of his eggs for a feast because he mistakenly believed there were dozens more hens in the coop.

6. The Gross Market Rate of Interest as Affected by Inflation and Credit Expansion

Although in the long run the influx of additional money into the economy may increase the gross rate of interest, there is no question that it will reduce the rate of interest if the new money first hits the loan market. This of course is exactly the procedure adopted by governments that, for political reasons, wish to lower interest rates and create an atmosphere of prosperity.

If it were not for continual (and indeed increasing) injections of new money into the loan market, the boom period would come to an abrupt end. Once the disturbance had ceased, prices would readjust and entrepreneurs would realize their plans had been overly ambitious. On the other hand, if the banks continually supply ever larger quantities of fiduciary media (i.e., unbacked money) to the loan market, the gross rate of interest can be held below the level corresponding to the rate of ordinary interest and the proper price premium. Once in motion, the boom feeds on itself, so long as additional injections of credit are forthcoming. The rise in input prices is not viewed with alarm, because consumer prices are rising too, and with cheap financing, the projects still appear profitable.

As a rule, the government and/or banks stop the credit expansion at some point, and let the bust or depression ensue. However, if they threw caution to the wind and continually injected exponentially growing amounts of credit into the loan market, the boom could not last forever. After all, printing new pieces of paper does not create additional capital goods. If entrepreneurs attempt to lengthen the structure of production even though people have not freed up resources by cutting back on their consumption, at least some of the entrepreneurs will have to abandon their operations before completion. It would be physically impossible to complete them all, given the technology and available resources. Some businesses will shut down, laying off their workers and selling their inventories.

It is a common mistake to refer to this explanation of the trade cycle as an "overinvestment" theory; in reality it is a *malinvestment* theory. The credit expansion that causes the boom does not create additional capital goods, so there is no question of *too much* investment. Rather, what happens is that entrepreneurs improperly deploy the resources that *are* available, such that some of the production processes put into motion will have to be shut down in the future. The entrepreneurs, misled by the artificially low interest rate, behave as a master builder who lays too large a foundation for a house, because his subordinates incorrectly tell him how many bricks and other materials he has available.

Another typical mistake is to equate expansionary credit policies with rising prices. Yet this need not be the case. In an unhampered market economy, the output of goods and services tends to increase year after year, providing a tendency for falling prices. In this context, credit expansion may simply offset this trend, such that actual prices remain fairly stable. This is what happened during the 1920s in the United States, when conventional price indices indicated "neutral" monetary policy; in fact, the seeds were being sown for a massive bust.

In the same manner, the "impoverishment" of the bust period is relative. It may be the case that per capita income is higher during the "depression" phase than it was on the eve of the boom period. Yet this doesn't prove the beneficial effects of the credit expansion; people would have been even richer had the boom-bust cycle not occurred.

The Alleged Absence of Depressions Under Totalitarian Management

Critics of the market economy allege that the trade cycle is a natural product of capitalism. This claim is false, because (as this chapter demonstrates) it is only government-backed credit expansion that causes the boom period with its necessary bust. In a sense, the critics are right; there is no such thing as a depression in a society where the dictator arranges all economic affairs. He can order all able-bodied workers to report to certain factories day in and day out, and there need be no "unemployed" natural or capital resources as well. However, this is only possible because the dictator has no barometer of success or failure. In a market economy, the bust period signifies the necessary readjustment of the structure of production, in order to best satisfy the desires of consumers. If we drop that goal, then no readjustments are ever necessary.

7. The Gross Market Rate of Interest as Affected by Deflation and Credit Contraction

It is also possible to analyze the reverse procedure, where the government or banks artificially reduce the stock of money by draining it from the loan market. For example, if a government wished to raise the purchasing power of its currency (perhaps to restore its old parity with a precious commodity that had prevailed before an inflationary episode), it might issue bonds to the public and then destroy the funds raised. In two respects this would be the opposite of a credit expansion, as it would temporarily raise the gross rate of interest (since the government would be entering the loan market on the demand side) and would tend to lower prices (since a portion of the money supply would be destroyed).

The problem of deflationary credit contraction is not as important as that of inflationary credit expansion. For one thing, it is politically unpopular and so governments do not typically pursue such a policy. Another important difference is that credit contraction has no lasting ill effects; it may temporarily interrupt borrowing and hence production, but once the interference ends, business can resume as usual. This is not the case with an inflationary credit expansion, because during the boom period the capital structure is physically depleted. Real savings and investment must restore it in order for "business as usual" to continue.

The Difference Between Credit Expansion and Simple Inflation

There are cases where the same tools that cause a credit expansion are used as a convenient way for the government to simply inflate the currency. For example, the government might sell bonds to the central bank, which in turn creates additional reserves in order to buy the bonds. This operation would not, by itself, set into motion the trade cycle, because it is just a roundabout way for the government to create new money in order to finance its budget deficit.

8. The Monetary or Circulation Credit Theory of the Trade Cycle

The British Currency School provided a monetary theory of the trade cycle, but made two mistakes. First, it thought only injections of new banknotes could cause the boom period. However, in reality unbacked deposits will have the same effect. Second and more important, the Currency School only analyzed the cycle in terms of one country's banking sector expanding while other banks exercised restraint. This focus mistakenly led them to conclude that the problem was the drain on the expanding country's reserves. They completely missed the issue of the deviation of the market rate of interest from the originary rate.

In an unhampered market based on commodity money, it is theoretically possible that sudden discoveries of gold (for example) could hit the loan market at an early stage and cause a boom-bust cycle. However, there are two reasons that this possibility is insignificant compared to government-engineered credit expansions with unbacked fiduciary media. First, there is no reason for new gold to enter the economy completely through the loan sector. Second and more crucial, it takes real resources to dig up new gold or other commodities. The danger of new

money hitting the loan market and falsifying the rate of interest is infinitely greater in the case of printing up banknotes or adding numbers to an electronic record of reserves, which is all that is required for credit expansion with fiat money.

9. The Market Economy as Affected by the Recurrence of the Trade Cycle

Although the boom period is associated with prosperity, while the bust is considered deplorable, things are actually the opposite. It is the boom period in which resources are malinvested and waste occurs, while the depression (or recession) is the necessary readjustment phase to try to make the best of the situation.

The Role Played by Unemployed Factors of Production in the First Stages of a Boom

The apparent benefits of credit expansion seem particularly obvious when the onset of the boom allows unemployed laborers to go back to work, and unused factories to begin humming. Surely it makes sense to put these factors back to work, producing output for consumers! Yet the problem is that these unemployed factors were the hangover from a *previous* boom period.

Although some nonspecific factors of production can be diverted into alternate employment during the readjustment phase (i.e., the recession), there are other factors—particular workers, certain plants, stocks of inventories—that must remain idle, while their owners try to incorporate them into the revised structure of production. In light of the realization that the earlier plans were erroneous (due to the false interest rate), the owners of these idle resources must accept their current situation and do the best they can. Until they lower their asking price to the now-appropriate level, they will not be able to find buyers in the new environment. This harsh experience is necessary in order for these resources to be correctly redeployed in lines that will satisfy the consumers. If, in the midst of this painful readjustment process, a new inflationary credit expansion is set in motion, so that the idle resources can resume in their original lines, this will not have "cured" the problem. Instead it will only prolong the malinvestments that began during the last boom.

The Fallacies of the Nonmonetary Explanations of the Trade Cycle

Even the theories of the boom-bust cycle that rely on "real" factors must assume that there is a credit expansion to allow their story to play out. Thus everyone concedes that an inflationary credit expansion is *necessary* for a boom-bust, while some still deny that it is *sufficient*.

The crucial feature of a business cycle is the prevalence of forecasting errors *in general*. In the market economy, there are always entrepreneurs who make mistakes. But the profit-and-loss system tends to weed out those who cannot learn from the past, and reward those who best anticipate the future. Any particular theory of the business cycle based on nonmonetary causes must explain why the entrepreneurs involved are incapable of noticing the pattern, even though the academic has written books on the topic.

Why It Matters

This vital chapter succinctly lays out the Misesian theory of the trade cycle, or what we now call the business or boom-bust cycle. Contrary to popular belief, the trade cycle is not inherent in the free-market economy, but is rather caused by government intervention in the loan market. The injection of unbacked money pushes down interest rates, preventing them from performing their role in regulating the length of production processes. After digesting this chapter, the reader will understand the causes of the business cycle and what policies would prevent its recurrence in the future.

Technical Notes

- (1) On pages 542–543 Mises makes a subtle but fascinating observation on the flaws in time-series analyses of interest rates. He writes, "In arranging time series of the prices of certain primary commodities, empiricism has at least an apparent justification in the fact that the price data dealt with refer to the same physical object. It is a spurious excuse indeed... But in the study of interest rates, even this lame excuse cannot be advanced." Mises has in mind the following type of observation: If one econometrician assembles the daily "price of oil" from 1990 to 2000, while another econometrician instead studies the daily "prime rate" during the same period, the latter classification relies much more on a priori theory in order to even collect the "raw data." It is fairly objective to say whether something is or is not a barrel of oil conforming to particular specifications; one certainly doesn't need a theory of oil prices in order to do so. But in order to even classify a particular event as the lending of money to a creditworthy borrower—so that it should be included in the "prime rate" series—one must already have an understanding of what motivates people on the loan market.
- (2) On page 568, Mises argues that sometimes the machinery of credit expansion is employed in simple inflation of the money supply, where the government engineers the creation of new paper money in order to buy goods and services (for which its tax revenues are inadequate). One might wonder why the bank's issuance of fiduciary media (needed to buy the government's bonds) doesn't lower the interest rate. The answer is that this increase in the supply of credit is exactly counterbalanced by the government's demand. Now what *is* true is that the resultant market rate of interest is lower than it would have been, *had the government issued the bonds in any event*—absent the money creation, the government's borrowing would have pushed interest rates up, and this increase would have been "correct." But what Mises seems to be arguing is that this procedure (where the bank issues new credit in order to buy the government treasury's bonds) is economically identical to the government simply printing up the new money itself in order to finance its deficit. There is no question that this latter procedure would have no boom-bust effects, but rather would simply cause prices to rise in ripples throughout the economy. An interesting issue is the fact that in the first case, where the government treasury issues bonds to the banking sector, those bonds still exist after the deficit has been covered in the current year; the treasury must ultimately redeem them out of tax revenues (or additional money creation). In the case where the government itself prints the new money, there are no lasting liabilities. Thus it is not clear whether the two operations really are equivalent in all respects.
- (3) On page 570 Mises deals with the "only objection ever raised against the circulation credit theory." In recent decades, however, the most common objection against the Misesian theory of the trade cycle is that it supposedly assumes businesspeople are incapable of learning—ironically the same objection Mises directs towards other theories of the cycle (p. 581). Specifically, modern economists who subscribe to some version of "rational-expectations" theory ask the Austrian, "Why doesn't the business community realize that the gross rate of interest is false? Why do entrepreneurs mechanically plug in the interest rate to compute profitability, rather than studying monetary policies and adjusting their calculations?" Modern Austrians have given several replies. For one thing, it is impossible for businesspeople to perfectly calculate the impact that injections of new money will have; that's Mises's whole point about the driving force of money. In effect, the critics seem to be asking why the entrepreneurs don't perform their calculations with the ordinary rate of interest,

when the crucial point is that they need the *market* to tell them what it is. A second response is that there is a "prisoner's dilemma" aspect to the situation. If the government is in effect handing out \$100 bills to any entrepreneurs who are willing to take them, how could this *not* disrupt the market for factors of production? Even if everyone is aware that an unsustainable boom is underway, people still have to play along.

Study Questions

1. The Problems

- What is the definition of the neutral rate of interest?
- What is the definition of the gross money rate of interest?

2. The Entrepreneurial Component in the Gross Market Rate of Interest

- How does the entrepreneurial component in all species of loans manifest itself?

3. The Price Premium as Component of the Gross Market Rate of Interest

- How do the speculations of the promoters influence the gross market rate of interest?
- Why can't price premiums render the interest rate neutral?
- How do price premiums come into existence?

4. The Loan Market

- What role does the rate of interest play with regard to business planning?
- How can the supply of money affect the market interest rate? How does it affect the originary rate of interest?

5. The Effects of Changes in the Money Relation Upon Originary Interest

- What are the consequences of forced saving for originary interest?
- How can inflation provide the illusion of profits?

6. The Gross Market Rate of Interest as Affected by Inflation and Credit Expansion

- How can it be that the German Reichsbank's discount rate of 90 percent was, in the fall of 1923, a low rate?
- In what way can credit expansion create booms? Are they durable? Why are these booms not long lasting?
- How can a general rise in prices occur?
- What are the differences between an artificial boom created by credit expansion and a normal expansion of production with regard to capital goods?

- If one wants to know whether there is an artificial expansion underway, where should he look?
- Why is it important to stress the difference between malinvestment and overinvestment?
- Why do commodity prices not necessarily rise within a period of credit expansion?

7. The Gross Market Rate of Interest as Affected by Deflation and Credit Contraction

- What are the essential consequences of deflation and credit restriction?

8. The Monetary or Circulation Credit Theory of the Trade Cycle

- What are the two shortcomings of the British Currency School, according to Mises?
- Can a new influx of gold create a credit expansion?

9. The Market Economy as Affected by the Recurrence of the Trade Cycle

- Why are there always unsold inventories in the changing economy?
- Can unused capacity justify a credit expansion?
- Can there be a nonmonetary explanation of the trade cycle?