

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

Chapter XIX. The Rate of Interest

Chapter Summary

1. The Phenomenon of Interest

Originary interest is the discount applied to future goods versus present goods, and is ultimately due to the universal phenomenon of time preference. As chapter XVIII demonstrated, people necessarily value present goods more than comparable future goods. This naturally leads to higher market prices for a given good available immediately, versus an airtight claim to future delivery of the exact same good. This higher market price for the present versus the future good *is* originary interest; it is the phenomenon that the economist must explain.

The classical economists mistakenly attributed interest income (which they called "profit") to a specific class of goods, namely, "capital." They thought interest ("profit") was what "capital" earned, while rent was the type of income earned by land, and wages were the type of income earned by labor. However, modern economics recognizes that rent is a more general phenomenon; it is the income earned by any scarce productive factor. For example, the owner of a snow plow—a capital good—can "rent" out its services, and in a sense even the worker "rents" his services to his employer for a periodic fee. It is also the case that interest is earned not merely by the owners of capital goods, but by the owners of land as well. Someone who pays \$100,000 for a parcel of farmland that yields an annual rent of \$5,000 would calculate an interest return of 5 percent per annum on his invested financial capital. This is interest income just as surely as that earned by the owner of a factory. As these observations demonstrate, the classical economists were wrong to try to attribute rent and interest ("profit") to specific types of productive factors.

The understanding of the source of interest presented in this chapter shows the fallacy in attempts to explain interest by reference to the productivity of capital goods. It is true that one can produce more output with a machine than without. Yet this technological fact does *not* explain why someone who invests in the machine earns interest. The productivity of the machine explains its price. The machine's productivity *per se cannot* explain why the purchase price is lower than the market price of the extra output that the machine will eventually yield. It is this discount on factors of production (compared to their eventual finished products) that constitutes interest.

2. Originary Interest

Originary interest is not "the price paid for the services of capital," which is the typical definition. The *rental price* of a capital good is due to its services. Interest is not really a price itself, but rather a *ratio* of prices, namely, that of a present good compared to that of a future good.

Originary interest also explains the finite price of land, which (in theory) provides an indefinite flow of services. If people didn't discount income flows expected in future years, then they would be prepared to pay any sum, no matter how high, for a piece of land.

Orthodox treatments will say that the rate of interest is determined in the loan market, by the interplay of supply and demand. It is rather the other way around: the willingness to lend or borrow quantities of money at various interest rates is determined by people's subjective time preferences, i.e., by the discount that they place on future versus present consumption. The rate

of interest is evident not merely in the loan market, but throughout the entire structure of production, in the "markup" of the price of a finished good compared to the sum of the prices of its inputs. Naturally the "markup" of \$100 lent today compared to the \$105 paid back in one year must correspond to the markup a capitalist could earn (say) buying ten-year-old wine and selling eleven-year-old wine twelve months later, due account being made for the different risks involved. The same phenomenon of time preference determines the level of markup in both examples; it is not the case that the cash-loan market "sets" or "determines" the rate of interest in other markets.

3. The Height of Interest Rates

It is incorrect to say that a higher interest rate draws forth more savings and vice versa. Rather, the discount people place on future goods determines both the amount of saving and the height of interest rates.

The supply of capital goods bears no necessary relationship with the rate of interest. People sometimes assert that capital accumulation leads to lower interest rates, and point to the interest rates in advanced versus backward economies as proof. However, the high loan rates of interest in less-developed countries reflect not merely the pure time discount but also the risk involved in investments in these countries. Although psychology and physiology may suggest rules of thumb regarding income and the amount of saving, these are not praxeological truths and one can always find exceptions.

4. Originary Interest in the Changing Economy

The British classical economists classified the excess of gross revenues over total money expenditures as "profit." Modern economic theory decomposes this difference into implicit wages for the entrepreneur, interest on the capital invested, and true entrepreneurial profit (or loss). If a woman invests \$100,000 of her own money into machinery and tools, and also devotes 80 hours of her time per week running her own business, in order to earn a monthly excess of \$1,000 in receipts over her outlays, she will certainly not view the business as profitable. She will rightly take into account that she could sell her labor to other employers, and earn interest on her \$100,000 by investing it in other ventures, in order to earn much more than \$1,000 per month in disposable income.

The distinction between interest and pure profit is evident in the evenly rotating economy, where everything repeats itself day after day. Even in this case, where there is no uncertainty, the sum of expenditures on factors of production is lower than the revenues consumers pay for the finished product. This difference is originary interest, and demonstrates the influence of time preference. Even in the evenly rotating economy, people prefer present to future goods, and that is why the collection of inputs necessary to make a product has a total market value *lower* than the final price for the finished good. Even when there is no uncertainty, it is still necessary to *wait* for the finished product if one starts with the labor, natural resources, and capital goods required for its production. This inherent waiting time is responsible for the "markup" between the prices of a good's inputs compared to the price of the good itself.

In the real world, on top of this pervasive originary interest due to time preference, there is also the entrepreneurial gain (or loss) due to the investor's relatively superior (or inferior) anticipation of future market conditions. The actual rate of interest specified in loan contracts, or manifested in the markup between factors of production and the consumer goods they ultimately yield, involves not only originary interest (due to the time involved) but also entrepreneurial profit. This accompaniment of pure profit with every loan or investment illustrates that in the real world, every act is entrepreneurial; people must always forecast future conditions and plan accordingly, knowing that their judgments may be mistaken.

5. The Computation of Interest

Entrepreneurs tend to eliminate differences in the originary rate of interest implicit in the factors of production in different sectors. If the markup between wheat and a loaf of bread is higher than the markup between grapes and a bottle of wine, then investors will shift their funds out of wine production and divert them into bread production. (We of course are simplifying the recipes involved for expositional ease.) This shift will immediately drive up the price of wheat and drive down the price of grapes, and will also (perhaps after a lag) drive down the price of bread and drive up the price of wine. The shift will thus shrink the difference in markup between the two sectors. Funds will continue to move until the rate of return in bread production is the same as in wine production.

People necessarily value satisfactions less as they become more and more remote in the future. However, there is no reason for the diminishment in value to proceed at a uniform rate into the future. Indeed, since every actor has a finite period of provision, it is impossible for valuation to diminish in a uniform percentage per time period—because this would mean that each actor places some value (however small) on satisfactions to occur in a billion, trillion, or more years in the future.

It is customary in the loan market to quote interest rates on a per annum basis. This is merely a convention, however, and does not indicate that people discount future time intervals in proportion to their remoteness. The sloped "yield curve"—i.e., the different annual rate of return on loans of varying durations—shows that people do not discount in such an even pattern.

Why It Matters

This relatively short chapter provides the necessary bridge between subjective time preference (the subject of chapter XVIII) and the Misesian theory of the business cycle (the subject of chapter XX). In the present chapter Mises explains how the discount on future goods leads to originary interest. The chapter will perhaps be one of the most unorthodox for a mainstream economist, because Mises stresses the differences between his understanding of interest versus the standard textbook treatment. In particular, Mises argues that the productivity of capitalistic processes is not the "cause" of interest.

Technical Notes

- (1) On page 523 Mises writes, "Originary interest is the ratio of the value assigned to want-satisfaction in the immediate future and the value assigned to want-satisfaction in remoter periods of the future." Strictly speaking this is nonsensical; as Mises himself explains in earlier sections, one cannot perform arithmetical operations on subjective valuations. What Mises means, of course, is that subjective time preference leads people to value present goods more highly than future goods, which in turn causes the objective market prices of present goods to be higher than those of comparable future goods. The ratio of these prices is the rate of originary interest. For example, if the price of a TV is \$110, while the price *right now* for an ironclad claim to the identical TV to be delivered in one year is only \$100, then the implicit interest rate is 10 percent. Notice that an investor with \$100 could today buy such a claim, wait one year, and then (if conditions haven't changed) sell his mature claim to a now-present TV for \$110. The investor has obviously earned 10 percent on his money, and this possibility is due to the fact that people would be willing to pay more for a TV *right now* than for a claim to a TV available after waiting twelve months. It is this subjective time preference that is necessary and sufficient for positive interest rates.

- (2) On pages 524–529, Mises alludes to the understanding of interest shared by Böhm-Bawerk and most modern economists. The mainstream view explains interest by the higher productivity of lengthier production processes. For example, if someone wants to bring water from a stream to his cottage, a very "direct" and quick approach is to use his hands to carry the water. This procedure yields water in the cottage almost immediately, but the volume of water obtained per hour of labor is very small. If the person were willing to postpone the achievement of the goal—namely, water in the cottage—he could greatly multiply the productivity of his labor by adopting a more "roundabout" or "indirect" procedure. For example, rather than using his time cupping his hands and walking back and forth from the stream to the cottage, the person could spend his time finding a coconut and hollowing it out. This would delay the arrival of the first drops of water to the cottage, but (once the capital good had been completed) would greatly enhance the subsequent hours devoted to fetching water. Finally, if the person were willing to wait many months before the achievement of his ultimate objective, he could first construct a pick, shovel, and other tools, in order to dig a trench from the stream to his cottage. This example shows that by lengthening the production process, the man can increase the gallons of water in his cottage yielded per day of his labor input.
- (3) On pages 532–533, Mises explains that contractual rates of interest reflect not only pure time preference but also contain an entrepreneurial component. Students of modern financial theory may have difficulty interpreting this statement. When a bank charges a higher interest rate to a borrower with a poor credit history, most analysts would say that this is because of the higher risk involved, whereas Mises (it seems) would say that if the loan is repaid, the higher return reflects the superior judgment of the lender, who forecasted that the borrower would repay when other lenders didn't agree. These subtleties can only be fully resolved in light of the distinction between actuarial risk versus open-ended uncertainty, or what Mises calls class versus case probability (see pp. 107–113). For example, if a bank issues thousands of similar loans to borrowers with poor credit, and charges a rate of interest on each loan such that the rate of return on the entire portfolio (including the defaults) is the same as the overall return from a portfolio of investments in very safe government bonds, Mises probably wouldn't say that the bank earns entrepreneurial profits on all of the personal loans that happen to be repaid, while suffering exactly counterbalancing entrepreneurial losses on the personal loans that ended in default. Rather, he would probably say that the pooling of the personal loans, and charging a higher contractual rate, removed this quantifiable risk and hence the higher interest rate does not reflect a specific entrepreneurial component. In the same way, an Austrian economist could plausibly argue that the annual fire-insurance premium (for a house that doesn't burn down that year) doesn't reflect pure profit earned by the insurer. Even here, however, if different insurers *disagree* on the likelihood of certain houses burning down, then the revenues received by some of the firms may indeed reflect entrepreneurial profit.

Study Questions

1. The Phenomenon of Interest

- What is the definition of ordinary interest?
- Does the serviceableness of the factors of production explain the interest earned by someone who invests in them? Why not?

2. Originary Interest

- How does originary interest manifest itself in the market economy?
- Why would originary interest exist in a very primitive state of affairs? Is the concept of originary interest still valid in a socialist commonwealth?
- What does scarcity imply with regard to the technological improvement of production processes?
- What are the definitions of plain and capitalist saving?
- What is the essential deficiency of the static system as Schumpeter describes it?

Comment: "If one eliminates the capitalist's role as receiver of interest, one replaces it by the capitalist's role as consumer of capital."

- Can interest be abolished by law? Can interest payments be abolished by law?

3. The Height of Interest Rates

Comment: "Changes in the originary rate of interest and in the amount of saving are—other things...being equal—two aspects of the same phenomenon."

4. Originary Interest in the Changing Economy

- What was the British classical meaning of "profit"? What is the modern understanding?

5. The Computation of Interest

- Why do the activities of the entrepreneurs tend toward the establishment of a uniform rate of originary interest?
- If a bond is issued with a contractually fixed rate of interest, what happens if conditions change during the life of the bond such that people now discount the future more heavily?