

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

Chapter XVII. Indirect Exchange

Chapter Summary

1. Media of Exchange and Money

In direct exchange, each party intends to use the object being acquired for consumption or production. In contrast, during indirect exchange, at least one of the parties to the transaction does not intend to personally use the item being acquired. He plans to trade it away in the future for some other item. This is why the object is a *medium* of exchange: just as air is a medium through which sound waves are transmitted, so too can an economic good serve as the medium through which a more ultimate exchange is effected.

When one particular good is used as a medium of exchange by most members of the community—when it serves as the "commonly used" medium of exchange—then it is *money*. All monies are media of exchange, but not all media of exchange attain the status of money.

2. Observations on Some Widespread Errors

The "equation of exchange" is a typical yet obsolete approach to the analysis of money. It asserts that $PV=MQ$; that is, the "price level" (P) times the "velocity of circulation" of money (V) must equal the aggregate stock of money (M) times the quantity of real output (Q). From this identity, economists derived the faulty notion of the "neutrality of money," which asserted that a given increase in the stock of money could proportionally raise all prices.

Yet this is reasoning in a circle. The argument starts out with the assumption that "level of prices" and "total output" are meaningful concepts. This is not how economists approach other issues in economic theory. When explaining the price of apples, the economist looks at the individual actor and his marginal utility for apples; he doesn't consider the class of all apples. The same approach works with explaining the "price" (i.e., purchasing power) of money.

There is one important difference between the economist's task in explaining the purchasing power of money, versus explaining the price of other goods such as apples or televisions. For these other goods, the economist takes the actor's valuation of them as a given fact, which can be handled by the psychologists and physiologists. But it *is* the economist's job to explain *why* a man should value a specific unit of money in the first place, as well as tracing out the implications of that valuation.

3. Demand for Money and Supply of Money

Some goods are more marketable (or "liquid") than others. This means that a seller of such goods would not have to search very long to find a buyer willing to pay the highest likely price that anyone would offer for the good. In contrast, if the seller of an unmarketable (or illiquid) good

has to dispose of it quickly, he will have to accept a much lower price than what he would be able to obtain if he had more time to find a suitable buyer.

It is the difference in marketability of various goods that gives rise to media of exchange. For example, if a farmer wishes to trade away a pig in exchange for sweaters, but cannot find someone who wants to trade away sweaters for a pig, then the farmer can still improve his situation by trading away the pig for something that is more marketable, such as tobacco. Not only is he more likely to find someone who wants to trade away sweaters for tobacco, but it is much easier to store and transport the tobacco than the live pig.

Money provides its unique services when it resides in someone's cash balance. There is no such thing as money "in circulation"; at any moment, every unit of money belongs to someone's cash balance. For this reason, there is nothing to distinguish the "hoarder's" cash balance from that of a "normal" person, except for their relative size.

The Epistemological Import of Carl Menger's Theory of the Origin of Money

The different degree of marketability among goods forms the basis of Carl Menger's theory of the spontaneous origin of money. We do not have to posit a wise king who conceived of the benefits of indirect exchange, and instructed his subjects accordingly. We need only assume that people in direct exchange began behaving as our hypothetical farmer above. As people increased their demand for marketable goods (for use as media of exchange), this would increase their marketability even more so. The process would snowball until only a few goods—such as gold and silver—served as the media of exchange to which everyone turned. At that point, money emerged, though no one had planned the outcome.

4. The Determination of the Purchasing Power of Money

The "price" of money is its exchange value in the market place; it is the vast array of goods and services at any moment that others are willing to offer for a unit of the money. For a commodity money such as gold, its market value depends on its industrial demand as well as its monetary demand; people offer valuable items for gold because they wish to use it in production or consumption, but also because they wish to hold it as a medium of exchange. (The special case of fiat money, which has no industrial or consumption use, will be handled in section 9.)

Economists were reluctant to use the standard marginal-utility approach to the price of money because of an apparent paradox. The monetary component of the demand for money is clearly due to its exchange value; people are willing to labor for an hour in exchange for a certain quantity of gold, because they believe that they can obtain food, shelter, and other items later on in exchange for the gold. But this seems to argue in a circle: it says that the money has marginal utility because it possesses exchange value, while it explains the exchange value of money by reference to its marginal utility!

Mises showed the way out of this impasse. To explain the purchasing power of money right now, we rely on people's expectations about the *future* purchasing power of money. And these expectations in turn come about from the experience of money's purchasing power in the recent past. In short, the purchasing power of money *today* is grounded on the expectations of its purchasing power *tomorrow*, where this forecast is based on its purchasing power *yesterday*. The

economist is thus not saying, "We explain the exchange value of money by reference to the exchange value of money," but rather, "We explain today's exchange value of money by reference to yesterday's exchange value of money."

Mises also deals with the next objection, which is that the new argument leads to an infinite regress. This too is a faulty claim, because the process stops when the exchange value for the money is traced back to the days of direct exchange. At that point, the commodity was demanded solely for its direct use in production or consumption, when there is no question of the applicability of marginal-utility theory.

Other things equal, an increase in the supply of money will diminish its exchange value, i.e., the money prices of all other goods and services will rise. However, it is a crass error to assume that an injection of new money will lead to proportional increases in all money prices. On the contrary, certain individuals will spend the new money more quickly than others, causing the prices of only certain goods to rise while other prices lag behind. During the adjustment period, wealth will be redistributed into the hands of those who spend the new money early in the process.

5. The Problem of Hume and Mill and the Driving Force of Money

It is understandable that in response to the massive inflations in interwar Germany and other countries, people long for a money with stable purchasing power. Yet this is an impossible goal, as we have seen that changes in the supply of and demand for money affect prices unevenly. It is also nonsense to hope for a neutral money, which has no driving force of its own. Such a good would not be a "perfect" money; it would not be money at all.

6. Cash-Induced and Goods-Induced Changes in Purchasing Power

Changes in the exchange ratio between money and the various goods and services can arise either from the side of money or from the "real" side. Typically, changes in the purchasing power of money across most items can only occur from the money side.

Changes originating from the money side cannot make the community richer; they can only redistribute wealth, and this is true even if we disregard the matter of deferred payments. On the other hand, if the purchasing power of money increases because of a general increase in the supply of real goods and services, then some can be richer without a corresponding impoverishment of anyone else.

Any quantity of money can provide its full services to the community, in its role as medium of exchange. Expanding the money supply only enriches the community to the extent that a larger quantity is available for nonmonetary purposes.

Inflation and Deflation; Inflationism and Deflationism

The terms *inflation* and *deflation* used to signify cash-induced changes in the purchasing power of money. Yet nowadays the terms are used in a narrower sense, to denote merely the rise or fall in the so-called "level of prices." This new usage is unfortunate because it prevents the public from laying the blame on the true cause of price increases, i.e., increases in the supply of money.

7. Monetary Calculation and Changes in Purchasing Power

For the purposes of economic calculation, the businessman must decide upon a money in which to reckon. If the prevailing money is deemed too unstable, he may switch to another, but then he must deal with the unavoidable changes in purchasing power for this money. Under a gold standard, businessmen historically did not bother using index numbers or other devices to adjust their books for changes in the purchasing power of gold.

8. The Anticipation of Expected Changes in Purchasing Power

If people generally expect the purchasing power of money to change, they will adjust their cash holdings accordingly and speed up the process. For example, if prices in general are expected to rise, then people will lower their cash holdings and seek to acquire goods while they are relatively cheap. But this very reaction will itself push up prices. If the public ever becomes convinced that the rise in prices will continue to accelerate, they will completely abandon the currency in a "flight to real values," causing the "crackup boom."

9. The Specific Value of Money

A *commodity money* is one that serves nonmonetary purposes; an example is gold. *Credit money* evolved out of the use of money-substitutes, when the heretofore-prompt redemption of claims to money became suspect. At that point, the claims that previously circulated at par with the actual money traded at a discount, due to the uncertainty of the claim. However, they were still partially valued in their role as a medium of exchange. If a credit money loses its character as a claim against money proper, it can still conceivably circulate as a *fiat money*, which is valued solely for its use as a medium of exchange.

Holding cash balances requires a definite sacrifice, as the owner of a specific quantity of money must forego the goods for which it could immediately be traded, and the interest it could earn if lent. This consideration demonstrates that money provides services merely by resting "idle" in one's cash balance.

10. The Import of the Money Relation

In times of economic distress, people often blame a "lack of money." Yet widespread dislocations in production are the outcome of previous monetary disturbances (to be explained in chapter XX). To end a crisis and restore employment, real factors of production need to be rearranged to those lines where they will best serve the desires of consumers, and interference with the supply of money (in an attempt to thwart this readjustment) will only prolong the crisis.

11. The Money-Substitutes

If there is a claim to a definite amount of money, payable and redeemable on demand, such that no one doubts the solvency of the debtor, then this claim performs all the services of money and becomes a *money-substitute*. Typical examples are banknotes and bank demand deposits subject to check.

If the debtor, such as a bank, has kept a reserve of money proper to "back up" the money-substitutes that it has issued, the claims are called *money-certificates*. However, if the debtor has issued more money-substitutes than it can redeem with money proper, then the "unbacked" portion of the claims become *fiduciary media*.

12. The Limitation on the Issuance of Fiduciary Media

A bank or government naturally has the incentive to issue fiduciary media, but there are limits. If the issuance proceeds so rapidly that the public becomes suspicious, they will turn in the claims and demand redemption in actual money. In a competitive market, the limits are even narrower. A single bank will only enjoy a subset of the population as its clients; anyone else who receives its banknotes will not add them to cash balances. Therefore a bank that unilaterally inflated its issuance of fiduciary media would quickly find these excess notes returning for redemption.

Observations on the Discussions Concerning Free Banking

All of the alleged horrors that would occur under unregulated banking are in fact due to government privileges that relieve certain banks from their contractual obligations. Without government protection (in the form of "bank holidays," etc.), irresponsible banks would be subject to runs and would go bankrupt. The bogey of a cartel of private banks, expanding in unison, is nonsense; the banks with better reputations would not join the others. Moreover, the entire aim of the government in banking has been to cartelize the industry and promote credit expansion (in order to lower interest rates) that would not occur in a free market.

13. The Size and Composition of Cash Holdings

People decide on the proper size of cash holdings on the basis of subjective marginal utility. Generally speaking, what matters to a person is not the absolute quantity of money held, but its purchasing power. Although people may always desire more *wealth* (measured in money), it is not true that they always desire additional cash balances. It is entirely possible for someone to be holding "too much" cash, and he will take steps to reduce the holding.

14. Balances of Payments

The *balance of payments* is the record of the money equivalent of the incomings and outgoings of an individual or group during a specific period of time. The credit side and debit side are necessarily equal; the balance of payments is always in balance.

The modern view that a net outflow of money reflects a "negative" balance of trade is due to Mercantilist prejudices. A trade "deficit" is not an unforeseen calamity that strikes a nation, but rather the cumulative outcome of deliberate transactions undertaken by each individual within the nation. No one worries that the residents of New York might foolishly spend all of their money on wares from the other states. The situation is more complicated when other countries and foreign currencies are involved, but the principle is the same.

15. Interlocal Exchange Rates

Arbitrage opportunities keep exchange rates between moneys within narrow limits. Just as the prices for other commodities in different locations can only differ by the shipping costs involved—for if the difference were greater, then merchants would buy at the cheap location and sell in the dear location—so too can the purchasing power of different moneys differ only by a small margin. One important difference between money and other commodities is that there is a predictable pattern in the prices of the latter; they are lowest near their areas of production and rise with shipping costs as one moves farther away.

When a government inflates the currency, domestic prices rise unevenly. It may happen that the currency falls on the foreign exchange market early in the process. This leads to the silly charge that speculators are to blame for the price increases, since they "attacked" the domestic currency.

16. Interest Rates and the Money Relation

Credit transactions carried out in the same currency tend to yield the same interest rates for comparable credit risks. When money is borrowed in one currency and lent in another, the investor must take into account not only the different interest rates involved but also the possible change in exchange rates during the life of the loans.

17. Secondary Media of Exchange

The fact that one or more media of exchange have risen to the status of money does not eliminate the differences in marketability among the remaining goods. Those items that are still quite marketable—though not as much as the money good—will enjoy a demand for both their "original" use but also because of their marketability; in this respect they can be considered as secondary media of exchange. Those holding these secondary media can carry smaller cash balances accordingly. Typical examples include government and high-grade corporate bonds.

18. The Inflationist View of History

The general public, as well as many academics, view a moderate yet constant fall in the purchasing power of money as necessary for prosperity. Deflation is seen as a great evil. Yet in a market economy free from government expansion of the money supply, prices would generally fall over time. People would easily adjust to this new situation. Of course this observation is not a justification for a deliberate, government-engineered fall in prices.

19. The Gold Standard

Praxeology explains the emergence of money, but it is a task for the historians to explain why gold emerged as the worldwide money. The age of the gold standard marked the hallmark of classical liberalism. Those who view boundless credit expansion as the solution to mankind's problems necessarily hate the gold standard for the discipline it imposes on central banks.

International Monetary Cooperation

No cooperation is necessary to make an international gold standard work. Each government redeems its notes in exchange for the stipulated weight of gold. The various schemes for monetary cooperation are attempts to evade the limits to fiduciary media that a unilateral central bank would experience. If all governments expand in concert, then there will be no drain on their monetary reserves. This approach still overlooks the problem of the trade cycle, dealt with in chapter XX.

Why It Matters

This crucial chapter explains one of Mises's major contributions to economic theory, namely his regression theorem. It is no overstatement to say that Mises unified micro- and macroeconomics with this application of marginal-utility theory to the problem of money. In this chapter, Mises also explains the origin of money, how laissez-faire in banking would work, and hints at his theory of the boom-bust cycle, which will be fully explained in chapter XX.

Technical Notes

- (1) In defending his regression theorem explaining the exchange value of money, Mises writes, "Finally it was objected...that its approach is historical, not theoretical" (p. 407). This is an interesting issue, because on the surface it *does* seem as if Mises has deviated from the praxeological approach. After all, doesn't his explanation of the purchasing power of money seem to rely on a historical narrative, much as his archrivals in the German Historical School might give? Yet this is a superficial conclusion. Mises is not delving into history to see how gold in practice actually derived its purchasing power. On the contrary, one can logically follow the regression theorem without looking at any history books. It is a logical, theoretical construction that involves the passage of time.
- (2) In the discussion of free banking (p. 435), Mises alludes to a frequent objection that justifies government intervention on the grounds that ignorant individuals will be helpless to judge the quality of notes issued by unregulated banks. Notice that Mises's defense of free banking works even if everyone initially accepts unfamiliar banknotes. His point is that such recipients will get rid of these notes as quickly as possible, by either spending them or depositing them with their own bank. (The situation is similar to someone today who has both a \$20 bill and a check for \$20 written by someone unfamiliar. Which will be deposited at the bank first?) Soon enough these notes will find their way back to the issuing bank.
- (3) The crucial difference between money-substitutes and secondary media of exchange are that the latter must first be exchanged against money before their owner can obtain his ultimate objective. (See p. 461.)

- (4) Beyond the distinction mentioned in note 3, there is a very subtle difference between what Mises calls *credit money* (pp. 425–426) and *secondary media of exchange* (pp. 459–460). Both may be claims for units of money against a reputable issuer, such as the government or a respected bank. The difference is that Mises defines credit money as claims that originally were *immediately redeemable*, but for which the redemption has been suspended. Since they are not contractually credit instruments (despite their confusing name), they do not bear interest, though they trade below par because of the possibility that the issuer will never redeem them. In contrast, a secondary medium of exchange such as a government bond is exactly what it purports to be: in this case, a claim for future payment of money. It trades at a premium because of its marketability; i.e., it commands a higher price in the market than it would solely on account of the present value of the expected future cash flows to which its owner is entitled. (Note that not all secondary media of exchange are legal claims to money; Mises gives the example of jewels. We focus on bonds in this technical note to distinguish credit money from secondary media of exchange.)

Study Questions

1. Media of Exchange and Money

- What is indirect exchange? What are media of exchange?

2. Observations on Some Widespread Errors

- Why is it erroneous to speak of "neutral money"?
- What's wrong with the equation of exchange?
- Does objective use value influence prices?
- Why is the equation of exchange incompatible with the fundamental principles of economic thought?

3. Demand for Money and Supply of Money

- What is meant by a more "marketable" good? Does it simply mean a good that has a higher market value?
- What is the only function of money? Is money an economic good?
- What is the definition of a cash holding? Does the term "circulation" make sense under the consideration of cash holdings?
- Why is it erroneous to complain about hoarding? Is there a difference between cash holding and hoarding?
- Why can the appraisal of money be explained in the same way as the appraisal of all other goods?

- What's the confusion behind the objection that the marginal utility for money falls much more slowly than that for other commodities?
- What is Mises's critique of the quantity theory of money?

4. The Determination of the Purchasing Power of Money

- What is the regression theorem?
- Is it necessary to know the immediate past in order to anticipate the future purchasing power of money? In what way does the valuation of money differ from the valuation of vendible goods and services?
- What is the money relation and how does it determine purchasing power?
- Why doesn't an increase in the quantity of money affect the various commodities and services to the same extent at the same date?
- Who benefits from an increase of the quantity of money and who suffers?
- What can we say about the neutralization of cash holdings?

5. The Problem of Hume and Mill and the Driving Force of Money

- What is the problem of Hume and Mill?
- Why is it indispensable to stress the fact that money is an economic good and not a kind of numeric value?

Comment: "Money without a driving force of its own would not, as people assume, be a perfect money; it would not be money at all."

6. Cash-Induced and Goods-Induced Changes in Purchasing Power

- What are goods-induced changes in purchasing power?
- What are cash-induced changes in purchasing power?
- How important is the total quantity of money within an economy?
- Why does government always further the interests of some people at the expense of other groups when it prints new paper money?
- Why aren't the terms "inflation" and "deflation" praxeological concepts?
- What does Mises mean when he states that it "is impossible to fight a policy which you cannot name"?

7. Monetary Calculation and Changes in Purchasing Power

- Why can't economic calculation be perfect? Why is it vain to qualify it as imperfect?

8. The Anticipation of Expected Changes in Purchasing Power

- Is the purchasing power of the immediate past the basis of all judgments concerning money? What is the role of the anticipation of these changes?
- What were the causes of the "flight into real goods" or crackup boom? What is the failure of mathematical economics with regard to this phenomenon?
- What are the different stages of the inflationary process?

9. The Specific Value of Money

- What are commodity and credit money?
- Why can't we make assertions about the size of somebody's cash holding by considering a man's material situation?

10. The Import of the Money Relationship

- Can producers be in distress because of a scarcity of money?
- What are the consequences of an inflationary policy?

11. The Money-Substitutes

- What are money-substitutes?
- What is the definition of a money-certificate?
- What does *fiduciary media* mean?
- What is the definition of commodity credit?
- What is the definition of circulation credit?
- What distinguishes fiduciary media from money-certificates?
- What is the only source of credit expansion?

12. The Limitation on the Issuance of Fiduciary Media

- How is confidence important with regard to fiduciary media?
- What is the main argument for each independent bank to issue its own notes?

- What were the consequences of the laws that compelled banks to keep a reserve in a definite ratio of the total amounts of deposits and of banknotes issued?
- What is necessary to prevent any further credit expansion, according to Mises?
- Why do governments profit from using the printing press?
- Why shouldn't we fear a cartel of commercial banks?
- What is the relation between credit expansion and the rate of interest?

13. The Size and Composition of Cash Holdings

- In what way does the employment of money-substitutes that are not used abroad fuel the emergence of a surplus? What does surplus mean in this context?
- In which cases does a surplus go abroad?
- What is Gresham's Law?

14. Balances of Payments

- What is the definition of a balance of payments? What information does a balance of payments convey? In what way is the size of the group under consideration important?

15. Interlocal Exchange Rates

Comment: "[A]s a rule commodities move only in one direction ... [b]ut money is shipped now this way, now that"?

- Why does it make no difference whether the cities concerned belong to the same sovereign nation or to different sovereign nations? What is the role of shipping costs within the frame of these transactions?
- How has government interference sharpened the difference between domestic payment and payment abroad?
- What is the purchasing-power-parity theory? Why does the mutual exchange ratio between various kinds of money tend to a final state?
- Who benefits from dealing with the differences in exchange ratios?

16. Interest Rates and the Money Relation

- What are the causes for differences in the interest rate to occur?
- Why is it impossible, if *A* and *B* are both under the same standard, for the banks of *A* to expand credit if those of *B* do not apply the same policy?

- Does some agency need to defend a nation's currency system?
- Can the market rate of interest be permanently lowered by credit expansion?
- What is the only means of keeping a local and national currency permanently at par with gold and foreign exchange?

17. Secondary Media of Exchange

- What are secondary media of exchange?
- What are the most popular secondary media of exchange?
- What is meant by "hot money"? What is its significance?

18. The Inflationist View of History

- What's wrong with the view that economic progress is only possible in a world of rising prices?
- Why will opportunities for earning profit for an entrepreneur appear in a world of falling prices as well as in one of rising prices?

19. The Gold Standard

- Why is it nonsense to qualify the gold standard as a "barbarous relic"?
- Why did bimetallism, as established by the government, fail?
- Why did governments fight the gold standard?
- In what way does the gold standard limit the field of intervention of governments?
- What are the functions of the International Monetary Fund (IMF)? Is it necessary for the continuation of monetary affairs?