

# Of Love, Money, and Transactional Efficiency

## LEARNING OBJECTIVE

### 1. What is money and what economic functions does it perform?



Like love, money is ubiquitous, yet few of us feel that we have enough of either. As abstract concepts, money and love are both slippery, yet most of us believe that we know them when we see them. *Despite those similarities, mixing money and love can be dangerous.* The love of money is said to be one of the seven deadly sins; the money of love, despite its hoariness, is illegal in many jurisdictions in the United States and abroad.

Jest and wordplay aside, *money is, perhaps, the most important invention of all time.* Like the other major contenders for the title, indoor plumbing, internal combustion engines, computers, and other modern gadgets of too recent origin to consider; the wheel, which needs no introduction; the hearth, a pit for controlling fire; and the atlatl, a spear thrower similar in concept to a lacrosse stick, money is a force multiplier. In other words, it allows its users to complete much more work in a given amount of time than nonusers can possibly do, just as the wheel let porters move more stuff, the hearth helped cooks prepare more food, and the atlatl allowed hunters (warriors) to kill more prey (enemies).

What work does money do? *It facilitates trade by making it easier to buy and sell goods compared to barter, the exchange of one nonmoney good for another.* (If you've ever traded baseball cards, clothes, beers, phone numbers, homework assignments, or any other nonmoney goods, you've engaged in barter.) This is no minor matter because trade is the one thing that makes us human. As that great eighteenth-century Scottish economist Adam Smith (and others) pointed out, no other animal trades with nonrelatives of the same species. The inherent predisposition to trade may explain why humans have relatively large brains and relatively small digestive tracts. Trade certainly explains why humans have more material comforts by far than any other species on the planet. Each trade that is fairly consummated enriches both the buyer and the seller. The good feeling people get when they buy (sell) a good is what economists call **consumer surplus** (producer surplus). By making trading relatively easy, money helps to make humanity happier. (Note that this is not the same as claiming that wealth makes people happy. Although sometimes used synonymously with wealth in everyday speech, money is actually a special form of wealth.)

*Imagine what life would be like without money.* Suppose you try to fill up your automobile's gasoline tank, or take mass transit to school, or acquire *any* good, without using money (or credit, money's close cousin). How would you do it? You would have to find something that the seller desired. That could take a long time and quite possibly forever. If you don't believe me, go to any Craigslist posting, <sup>[35]</sup> where you will find listings like the one below. It's a fun diversion, but what would this person think is a "fair" trade? A lava lamp and a Grateful Dead poster? Would she give you a ball of yarn in change?

*Date: 2006-11-30, 2:37 PM EST*

Hello Craigslisters,

I recently moved to NYC and I have no use for the six items pictured below. Starting from the upper left going clockwise, I have: a working desk lamp, a hardcover copy of the NY Times best-selling book *The Historian*, an unused leather-bound photo album, a giant bouncy-ball that lights up when it bounces, a pair of goofy sunglasses, and a hand-made tribal mask from Mexico.

Make me any offer for any or all of the items, and if it's fair, we'll trade.



Answer: Only if you have a lot of time to waste. 

In the lingo of economists, by serving as a means or medium of exchange, *money eliminates one of the major difficulties of barter*, fulfilling this mutual or double coincidence of wants. And it does it quite well as it zips across the country and the entire globe. 

Another serious difficulty with barter helps us to see the second major type of work that money does. Suppose that the gas station attendant or bus driver wanted chewing gum and you had some. Exchange may still not take place because a crucial question remains unanswered: how many sticks of gum is a gallon of gas or a bus trip worth? Ascertaining the answer turns out to be an insurmountable barrier in most instances. *In a money economy, the number of prices equals the number of traded goods because each has a money price, the good's cost in terms of the unit of account. In a barter economy, by contrast, the number of prices equals the number of pairs of goods.* So, for example, an economy with just 1,000 goods (a very poor economy indeed) would require 499,500 different prices! Little wonder, then, that barter economies, when they exist, usually produce only ten or so tradable goods, which means about forty-five different prices, each good paired with nine others. By serving as a unit of account, a measuring rod of economic value, money makes price determination much easier. 

The unit of account function of money is more abstract than its work as a medium of exchange and hence is less well understood, but that does not mean that it is less important. *To be an effective force multiplier, money has to eliminate both of barter's biggest deficiencies.* In other words, it has to end the double coincidence of wants problem *and* reduce the number of prices, ideally to one per good. It does the former by acting as a medium of exchange, something that people acquire not for its own sake but to trade away to another person for something of use. The latter it does by serving as a unit of account, as a way of *reckoning value*. When functioning as a unit of account, money helps us to answer the question, How much is that worth? much like inches help us to answer, How long is that? or degrees Fahrenheit or Celsius help us to ascertain, What is the temperature of that? By helping us to reckon value, money allows us to easily and quickly compare the economic value of unlike things, to compare apples and oranges, both literally and figuratively. 

### Stop and Think Box

After the demise of the Soviet Union, inflation reigned supreme as the Russian ruble lost more and more of its value each day. Rubles remained a medium of exchange, but in many places in Russia, prices and debts began to be denominated in “bucks.” What were bucks and why did they arise?

Bucks were essentially U.S. dollars, and they were used as a unit of account and standard of deferred payment, as a way of reckoning value in a stable unit. Physical U.S. dollar-denominated assets, like Federal Reserve notes, were a medium of exchange, but also, in this context, they were a good store of value because they could purchase more rubles each passing day.

Money also works as a store of value and as a standard of deferred compensation. By store of value, economists mean that money can store purchasing power over time. Of course, many other assets—real estate, financial securities, precious metals and gems—perform precisely the same function. *Storing value, therefore, is not exclusively a trait of money.* By standard of deferred compensation, economists mean that money can be used to denominate a debt, an obligation to make a payment in the future. +

To help you to see the different functions of money, consider the following transaction: +

Customer: How much for a gallon of gasoline? (A) +

Attendant: \$2.99 (A) +

Customer: Great, fill ‘er up. (A) +

Attendant: Will that be cash (E), check (E), debit (E), or credit (D)? +

In the places labeled (A), money is working as a unit of account. The customer is trying to reckon the value of the gasoline, information that the attendant quickly encapsulates by quoting a money price. The customer just as quickly decides that she would rather have the gasoline than the money, or more precisely the other goods that the money could acquire, and requests the trade. The attendant responds by inquiring which medium of exchange (E) the customer wishes to use to pay for the good. Cash refers to physical currency, like **Federal Reserve notes** or Treasury coins. Check refers to a *paper* order for the transfer of money from a bank account. Debit refers to an *electronic* order for a transfer from a bank account or a prepaid declining balance debit card. Credit entails the prearranged transfer of funds from the customer’s creditor, a bank or other lender, in exchange for a small service fee from the gas station<sup>[36]</sup> and the customer’s promise to repay the lender (and perhaps interest and a yearly fee). In the case of the credit transaction, money is working as a standard of deferred payment (D) because the customer promises to repay the lender the value of the gas at some point in the future. (We will speak of credit money below, but students should not allow the lingo to confuse them. Credit cards and other loans are not money per se but rather are ways of obtaining it. The distinction will become clearer as your course of study during the semester unfolds.) +

Of course, conversations like the one above rarely occur today. Except in New Jersey and a few other places, people pump their own gas; stations post their prices on big signs for all to see; and in addition to dispensing the product, gas pumps handle credit and debit (and sometimes cash) purchases with ease.

Money makes all that possible, *saving humanity untold hours of waste over the trillions of exchanges completed each year.* 

## KEY TAKEAWAYS

- Barter entails the exchange of one good for another. It is inefficient because it requires satisfaction of the double coincidence of wants (party one must have what party two desires, and vice versa) and pricing problems (the number of prices of goods equals the number of possible pairs).
- Perhaps the most important invention of all time, money is anything that reduces the transaction costs of barter, anything that is commonly accepted as payment or in exchange.
- Money serves as a medium of exchange (physical means of payment), unit of account (measure of economic value), store of value (method of storing said value over time), and standard of deferred payment (basis upon which debts are repaid).



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<sup>[35]</sup> [newyork.craigslist.org/about/cities.html](http://newyork.craigslist.org/about/cities.html)

<sup>[36]</sup> Gas stations and other vendors sometimes charge higher prices for credit than for cash sales to compensate them for the transaction fee charged by the credit card companies. Most have given up such policies, however, due to competition for customers who found it convenient to charge purchases at a time before debit cards were widespread and many merchants refused to accept checks due to the high moral hazard. (Too many “bounced,” or were returned, for insufficient funds in the customer’s account.)