

Chapter 2

Myros and Other Concepts and Definitions

The purpose of this chapter is to establish the concepts and definitions that will be used in the sequel. One of the problems with economics is that much of its vocabulary consists of everyday words such as income, capital, and money that have fairly time-honored technical meanings, but meanings that frequently vary from economist to economist and from one generation of economists to another. As was noted in Chap. 1, capital is a notable example, as there are about as many concepts of capital as there are economists who have thought and written about it.

Cost offers another example. Indeed, consider the following statements regarding cost, all of which can be readily found in the literature:¹

- (A) Costs are subjective.
- (B) Costs are objective.
- (C) Costs determine choice.
- (D) Choice determines costs.
- (E) Prices must be set so as to recover costs.

Of these statements, B and E would seem to contradict A, while D would seem to gainsay C. But, before concluding that this is the case, consider the following:

A telephone company is debating whether to spend \$100 million in acquiring a commercial finance company, or to spend the same amount to replace an aging wire center in a revitalized and growing downtown area. The latter project is finally decided upon when the vice president pushing it threatens to resign if the project is not approved. Upon completion, the new wire center is allowed by the state Public Utility Commission to be put into the rate base at its full value and the telephone company is authorized to set rates that will recover the investment of \$100 million over a period of 20 years.

In choosing which project to pursue, the telephone company is guided by the *opportunity costs* of the two alternatives. In the event, it is decided that the risk

¹ The following discussion is taken from Taylor (1991, pp. 465–466).

of losing the vice president in question is too high a price to pay not to replace the aging wire center. This opportunity cost, which is *subjective*, determines the choice of project, and accordingly illustrates statements A and C.² The decision to replace the wire center sets in motion a stream of construction expenditures of \$100 million. These expenditures are *objective* and are caused by the decision to replace the wire center. They accordingly illustrate statements B and D. Finally, in view of the social contract between the telephone company and the Public Utility Commission, a portion of the \$100 million investment is to be depreciated each year according to agreed-upon accounting rules and this depreciation then becomes costs to be recovered through an appropriate set of rates. These costs illustrate statement E.

The point of this story is not that cost is a confusing and confused concept, but that one word – cost – is being asked to do too much. There are, as the tale exemplifies, a number of different concepts of cost, and to refer to all of them indiscriminately as “cost” without proper qualification is to lead to confusion. The same is true for the word “capital.” The various concepts of capital – physical capital, financial capital, working capital, etc. – are all useful in context, but a single word, capital, cannot cover all contingencies of its use without proper qualification. What is needed is a root concept of capital which is both unifying and encompassing. And as was noted in the Prologue and Chap. 1, I believe that the concept of myros provides such an instrument.

2.1 Myros

The concept of myros will be approached in several different ways. To begin with, it is most useful to see myros as representing a pool of accumulated savings. This pool comes into existence through saving and is reduced through investment in produced means of production, the funding of current production, and consumption in excess of current income. The pool of myros has two sides – a goods side, which consists of stocks of unconsumed consumables and finished intermediate goods, and a claims side, which consists of the sum total of unexercised claims to both current and past production.

In a barter economy (with property rights), the two sides of the pool of myros would be trivially the same, for the goods that are not consumed (i.e., that are saved) are actually owned by the individuals involved. The goods themselves are also the “claim tickets.” In a monetary economy, in contrast, the claim tickets in question initially take the form of money. This is because incomes in a monetary economy are received in money, and saving accordingly occurs through money not being spent. The monies saved can be subsequently exchanged for other forms of assets,

² Buchanan (1969) provides a detailed discussion of the nature of costs and choice. See also Buchanan and Thirlby (1981).

both real and financial, so that the values induced on these assets become included in the claims pool on the claims side of the pool of myros.

Of the events described in the Prologue, saving – and therefore myros – first emerges when the young man who suffers from bad dreams begins spending some extra time in the mine each day in order to build up a store of bread to sustain him during the 10 days that are needed to build his house. Just before he starts the house, the pool of myros for the economy accordingly consists of 10 days of bread. During the 10 days that the house is being built, the pool of myros is being depleted, and at the end of the tenth day, when the house is completed, the pool is empty. The economy at this point has no myros, as the myros that had existed was consumed during construction of the house.³

Myros again emerges when the young woman who loves her leisure starts working extra time in the mine in order to provide sustenance during the 5 days that she is making her shovel. At the end of the day before she begins work on the shovel, the pool of myros for the economy consists of 5 days of bread. However, the pool is once again depleted during the 5 days that she devotes to making the shovel. When it is completed, a shovel exists (as does also the young man's house), but the economy once again has no myros. There can be no further investment in houses, shovels, or whatever until such time as additional myros comes into existence through saving.

A pool of myros comes into existence a third time in the economy when Alfredo creates a stock of 2 days' bread in order to acquire Georgia's picture, and then again when Thomas decides to create a retirement fund. From this point on in the story, the pool of myros is never empty, though it ebbs and flows as reserves of bread are increased and then reduced as a result of retirement saving, housing construction, investment in a safe, etc.

Other standard concepts of capital are also evident in the story, namely:

1. Physical (or real) capital, as exemplified by the house, shovel, and safe.
2. Working capital, as exemplified in the bread that is consumed by Georgia while she is producing paintings.
3. Financial capital, as exemplified by the "warehouse" receipts held by the individuals with bread on deposit in Fargo's safe.
4. Money, as exemplified by circulating "warehouse" receipts for bread on deposit in Fargo's safe, notes instructing Fargo to transfer bread from one "account" to another, and finally lumps of gold.⁴

An alternative way of arriving at the concept of myros is to begin with a gross concept of "capital" – without an adjective! – defined as the difference, measured from time immemorial, between the sum total of production and the sum total of

³ As noted in the Prologue, implicit in the foregoing is the assumption that latent labor is available in the form of working hours that can exceed the time needed to mine one's daily bread. A subsistence economy that does not have this option is not able to endogenously create myros.

⁴ Obviously, there are other ways that money can come into existence in a primitive economy. For a formal discussion of the conditions that a commodity has to satisfy in order for it to begin functioning as money, see Clower (1967). See also Kiyotaki and Wright (1989).

consumption. Consumption in this context is to be broadly construed as consumption in the usual sense of the word plus capital used up in production (including wastage and deterioration) and physical capital of the “white-elephant” type that never produces any output.

“Capital” in this sense is thus a stock (or, equivalently, a surplus). At any one point in time, this stock will consist of two components, a fixed (or sunk) component and a fluid (or liquid) component. The fixed component is represented by the undepreciated portion of produced means of production (of which plant and equipment, as usually interpreted, account for the major share), while the fluid component refers to a pool (or stock) of finished goods and goods in process of production. The fluid component of capital can also equivalently be viewed as being measured by the depreciation reserves of currently existing produced means of production plus the excess of past and current savings over past and current investment.⁵

The fixed (or sunk) component of capital represents what most writers have in mind when they either explicitly or implicitly refer to physical capital. The only important difference is that my definition of fixed capital refers only to the undepreciated portion of the physical stocks of produced means of production. This difference is important to the measurement of fluid capital, but not to the ability of the physical capital to produce output and generate income. A piece of physical equipment can be highly productive even though it is fully depreciated and carried on books at a value of zero.

The fluid component of capital thus represents the fund that is available to be drawn upon to finance and sustain investment in newly produced means of production, to fund the production of consumption goods, and to fund consumption in excess of current income. This fund provides for both finance and subsistence – finance, because the stock of goods contained in it can be monetized, and subsistence, because the goods themselves are available to be consumed during periods of production. The fluid component of capital clearly corresponds to what most writers would seem to have in mind when they refer to circulating, working, or liquid capital. Ricardo’s subsistence fund is clearly related to this concept of capital, as is also the “wages fund” of other Classical writers. *The fluid component of capital is as what I call myros*. This being the case, myros and fluid capital will henceforth be used interchangeably.

The characteristic of the fluid capital that makes it “fluid” or “liquid” is that, it is free to be embodied, through investment, in anything, anywhere. This characteristic is usually referred to as *fungibility*.⁶ Fluid capital is perfectly fungible, unlike sunk capital which is at best only partially fungible.⁷

⁵ Depreciation, as it is used in this paragraph, as well as throughout this book, will be clarified in the next section.

⁶ In the neoclassical growth and investment literature of the 1960s and 1970s, the term used was *putty*, as in “putty-clay” models. The clay, of course, referred to fixed (or physical) capital.

⁷ An existing airplane is perfectly fungible between different routes, but the capital that is embodied in the plane can be transformed into an office building (say) only through a recovery of that capital back into the pool of fluid capital through depreciation charges against the revenues generated by the plane.

2.2 Myros Recovery Charges

A concept which finds heavy use in the discussion to follow is depreciation (or what I will call *myros recovery charges*). Since my concept of depreciation differs from what is traditionally employed in the literature, it is critical that depreciation as used in this book be understood at the outset. In conventional neoclassical theory in which capital is treated as one of the factor inputs in a production function, depreciation is represented as the “using-up” (or “consumption”) of capital which occurs during the course of production. That physical capital represented in produced means of production is subject to wear and tear from usage or deterioration with the passage of time, there is no doubt, and to recognize this in determining an economy’s capacity to produce is of obvious relevance. However, this is not the concept of depreciation that will be used in this book.

Instead, depreciation in this book is defined in terms of a charge against quasi-rents which returns capital embodied in produced means of production back into the pool of myros.⁸ Viewed in this way, depreciation is simply an accounting device for transforming (over some relevant horizon) sunk capital back into fluid capital. Depreciation, as the term will be used in this book, thus represents an instrument for effecting saving, and bears no necessary relationship to physical wear and tear or deterioration.⁹ Henceforth, whenever depreciation in the conventional neoclassical sense is at issue, it will be referred as economic depreciation, wear and tear, or some such physical equivalent. Depreciation, as used here, will be referred to as *myros recovery charges*.

To fix the essential ideas, consider the following example. Assume that a firm has just purchased a newly produced machine with an expected useful operating life of 10 years at a cost of \$10,000. Assume, however, that in deciding to make the investment the firm used an investment (or “payback”) horizon of 5 years, rather than the expected 10-year life of the machine. Assume that in the first year of operation that quasi-rents of \$4,000 are generated by the machine and that the firm’s financial managers decide to make a myros recovery charge of \$3,000 against these quasi-rents. Assume that the \$1,000 that remains is kept as retained earnings. At the end of the first year, therefore, the firm’s books will show a profit of \$1,000, cash balances of \$4,000, a myros recovery reserve of \$3,000, retained earnings of \$1,000, and an undepreciated balance for the machine of \$7,000.

Assume that during the next 4 years quasi-rents continue to be \$4,000 each year, that myros recovery charges of \$3,000, \$2,000, \$1,000, and \$1,000 are made, and that all profit is paid out as dividends. At the end of the 5 years, the firm will show cash balances of \$11,000, myros recovery reserves of \$10,000, retained earnings of \$1,000, and a value of zero for the machine. However, since the machine is still

⁸ As used in this book, quasi-rents represent the difference between revenues and the out-of-pocket costs (but only the out-of-pocket costs) of producing those revenues.

⁹ The accounting aspects of depreciation will be discussed in detail in Chap. 9.

“healthy,” it will be expected to continue generating quasi-rents for another 5 years even though it is now fully depreciated.

While this example may seem an almost trivial exercise in elementary accounting, its essential point is to demonstrate that the myros recovery charges that recover the \$10,000 that was initially invested in the machine need bear no necessary relationship to the actual physical life of the machine. Absent tax considerations, the firm is free to take the myros recovery charges in any manner that it chooses (so long as the charge in any year does not exceed that year’s quasi-rent). After 5 years, the \$10,000 of fluid capital that was originally embodied in the machine is again fluid capital. No myros remains sunk in the machine even though the machine continues to exist and to generate output and income.

2.3 Human and Nonhuman Capital

The concept of human capital, and its distinction from physical capital, is central to current economic analysis. As with physical capital, human capital comes into being through investment; hence its creation represents consumption of fluid capital. With physical capital, as we have seen, there are two types of depreciation to be considered: physical depreciation, which represents the physical destruction or deterioration from use or the passage of time, and fiducial depreciation (i.e., myros recovery), which represents the repatriation of the fluid capital expended in the physical capital’s original creation.

With human capital, physical depreciation can itself take two forms. The first relates to the deterioration which occurs with lack of use and aging, while the second is the complete destruction which occurs at death. Unlike for physical capital, fiduciary depreciation for human capital seems remote, but the fact that human capital completely destructs at death means that the capacity to produce is permanently reduced unless replacement has occurred through education and training of a younger generation. The expenditures associated with this can be viewed as fiduciary charges against the earnings of the current stock of human capital. Whether this takes the form of prior saving or spending out of current income, the effect is the same: the fluid capital sunk in the sunset generation of human capital is repatriated and reinvested.

While the general principles governing the creation and renewal of human and nonhuman capital are the same, human capital differs from physical capital in its degree of fungibility. Human capital is clearly the more fungible, in that it can entertain different uses much more readily than can physical capital. Even within human capital, fungibility differs in that knowledge (or intelligence)-based capital has much greater fungibility than skill-based capital. With fungibility, the myros embodied in produced means of production can traverse different uses without the need to be repatriated back into fluid capital and then reinvested. Fungibility, therefore, clearly increases the efficiency of a given stock of produced means of

production, and is the reason why intelligence-based human capital, in general, has an advantage over skill-based human capital.

I now turn to a glossary of concepts and definitions of terms which will be used throughout the book. The listing which follows is logical, rather than alphabetical.

A Glossary of Concepts and Definitions

Goods	A good is anything for which individuals are willing to exchange their labor or fruits of their labor.
Production	Production is the creation of goods through the combining of labor with natural resources and produced means of production.
Social dividend	The social dividend represents the net output (but gross of depreciation) from production for an economy. In most circumstances, the social dividend can be identified with Gross Domestic Product.
Income	Income is generated by production and represents “claim tickets” to the social dividend.
Saving	Saving represents that part of the social dividend that is not currently consumed.
Produced means of production	Produced means of production are additions to the capacity to produce that are themselves produced. Produced means of production are temporary resources, in contrast to natural resources which are permanent. Produced means of production are durable, but nevertheless will eventually disappear if not maintained or replaced.
Investment	Investment represents the creation of produced means of production. The goods that are needed in the creation of produced means of production are drawn from the pool of fluid capital.
Quasi-rents	Quasi-rents represent the difference between revenues and the out-of-pocket costs (but only the out-of-pocket costs) of producing those revenues.
Myros recovery charges	Myros recovery charges represent charges against quasi-rents that return the capital embodied in produced means of production back into the pool of fluid capital. Alternately, myros recovery charges can be seen as the process whereby physical capital is transformed back into fluid capital.

Sunk capital	Sunk capital represents that part of the fluid capital embodied in produced means of production that has not yet been transformed (or recovered) back into fluid capital through myros recovery charges against quasi-rents.
Money	Money is a social invention which allows the pool of fluid capital to be transformed into universal purchasing power.
Monetization	Monetization is the process by which the pool of fluid capital is transformed into universal purchasing power through the granting of loans denominated in money. There are many forms that monetization can take, including the creation of bills of exchange, bank notes, checking deposits, etc.
General price level	Once a unit of account is established, the general price level is determined by the pool of purchasing power that is established by monetization of assets in conjunction with the stock of goods represented by the goods side of the pool of fluid capital. The general price level is established initially by selecting some good as the numeraire and expressing the prices of all other goods in terms of units of this good. Prices in terms of the numeraire's price may in turn be expressed in terms of the money unit of account.
Natural rate of interest	The natural rate of interest is the price which equates the demand for fluid capital with its supply.
Money rate of interest	The money rate of interest is the interest rate on money loans, and represents the price for monetizing the pool of fluid capital. In a world of uncertainty and a fractional reserve banking system, the lower bound to the money rate of interest is ultimately determined by the price that has to be paid to get holders of the primary money to give up their immediate claims to it (i.e., liquidity preference).
Assets	Assets represent instruments for transferring purchasing power over time. They come into existence because those with claims on the pool of fluid capital are willing to give up some of their claims in exchange. Assets can take a number of different forms – money, goods, old masters,

Wealth

loans, property rights in produced means of production, etc.

Wealth for an individual is represented by the sum of current income plus the value of all assets held. Wealth for an economy as a whole (viewed as a closed system) is given by the sum of current income plus the value (measured in current prices) of all stocks of unconsumed consumables.

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