

Time Preference

di Murray N. Rothbard

Time Preference is the insight that people prefer “present goods” (goods available for use at present) to “future goods” (present expectations of goods becoming available at some date in the future), and that the social rate of time preference, the result of the interactions of individual time-preference schedules, will determine and be equal to the pure rate of interest in a society.

The economy is pervaded by a time market for present as against future goods, not only in the market for loans (in which creditors trade present money for the right to receive money in the future), but also as a “natural rate” in all processes of production. For capitalists pay out present money to buy or rent land, capital goods, and raw materials, and to hire labor (as well as buying labor outright in a system of slavery), thereby purchasing expectations of future revenue from the eventual sales of product. Long-run profit rates and rates of return on capital are therefore forms of interest rate. As businessmen seek to gain profits and avoid losses, the economy will tend toward a general equilibrium, in which all interest rates and rates of return will be equal, and hence there will be no pure entrepreneurial profits or losses.

In centuries of wrestling with the vexed question of the justification of interest, the Catholic scholastic philosophers arrived at highly sophisticated explanations and justifications of return on capital, including risk and the opportunity cost of profit forgone. But they had extreme difficulty with the interest on a riskless loan, and hence denounced all such interest as sinful and usurious.

Some of the later scholastics, however, in their more favorable view of usury, began to approach a time preference explanation of interest. During a comprehensive demolition of the standard arguments for the prohibition of usury in his *Treatise on Contracts* (1499), Conrad Summenhart (1465–1511), theologian at the University of Tübingen, used time preference to justify the purchase of a discounted debt, even if the debt be newly created. When someone pays \$100 for the right to obtain \$110 at a future date, the buyer (lender) doesn’t profit usuriously from the loan because both he and the seller (borrower) value the future \$110 as being worth \$100 at the present time.¹

A half-century later, the distinguished Dominican canon lawyer and monetary theorist at the University of Salamanca, Martín de Azpilcueta Navarrus (1493–1586) clearly set forth the concept of time preference, but failed to apply it to a defense of usury. In his *Commentary on Usury* (1556), Azpilcueta pointed out that a present good, such as money, will naturally be worth more on the market than future goods, that is, claims to money in the future. As Azpilcueta put it: “a claim on something is worth less than the thing itself, and . . . it is plain that that which is not usable for a year is less valuable than something of the same quality which is usable at once”.²

At about the same time, the Italian humanist and politician Gian Francesco Lottini da Volterra, in his handbook of advice to princes, *Avvedimenti civili* (1574), discovered time preference. Unfortunately, Lottini also inaugurated the tradition of moralistically deploring time preference as an overestimation of a present that can be grasped immediately by the senses.³

Two centuries later, the Neapolitan abbé, Ferdinando Galiani (1728–1887), revived the rudiments of time-preference in his *Della Moneta* (1751).⁴ Galiani pointed out that just as the exchange rate of two currencies equates the value of a present and a spatially distant money, so the rate of interest equates present with future, or temporally distant, money. What is being equated is not physical properties, but subjective values in the minds of individuals.

¹ J.T. Noonan, Jr., *The Scholastic Analysis of Usury* (Cambridge, Mass.: Harvard University Press, 1957).

² Barry Gordon, *Economic Analysis before Adam Smith: Hesiod to Lessius* (New York: Barnes & Noble, 1975), p. 215.

³ Emil Kauder, *A History of Marginal Utility Theory* (Princeton, N.J.: Princeton University Press, 1965), pp. 19–22.

⁴ Arthur E. Monroe, ed., *Early Economic Thought* (Cambridge, Mass.: Harvard University Press, 1924).

These scattered hints scarcely prepare one for the remarkable development of a full-scale time-preference theory of interest by the French statesman, Anne Robert Jacques Turgot (1727–1781), who, in a relatively few hastily written contributions, anticipated almost completely the later Austrian theory of capital and interest.⁵ In the course of a paper defending usury, Turgot asked: why are borrowers willing to pay an interest premium for the use of money? The focus should not be on the amount of metal repaid but on the usefulness of the money to the lender and borrower. In particular, Turgot compares the “difference in usefulness which exists at the date of borrowing between a sum currently owned and an equal sum which is to be received at a distant date,” and notes the well-known motto, “a bird in the hand is better than two in the bush.” Since the sum of money owned now “is preferable to the assurance of receiving a similar sum in one or several years’ time,” returning the same principal means that the lender “gives the money and receives only an assurance.” Therefore, interest compensates for this difference in value by a sum proportionate to the length of the delay. Turgot added that what must be compared in a loan transaction is not the value of money lent with the value repaid, but rather the “value of the *promise* of a sum of money compared to the value of money available now.”⁶

In addition, Turgot was apparently the first to arrive at the concept of *capitalization*, a corollary to time preference, which holds that the present capital value of any durable good will tend to equal the sum of its expected annual rents, or returns, discounted by the market rate of time preference, or rate of interest.

Turgot also pioneered in analyzing the relation between the quantity of money and interest rates. If an increased supply of money goes to low time-preference people, then the increased proportion of savings to consumption lowers time preferences and hence interest rates fall while prices rise. But if an increased quantity goes into the hands of high time-preference people, the opposite would happen and interest rates would rise along with prices. Generally, over recent centuries, he noted, the spirit of thrift has been growing in Europe and hence time-preference rates and interest rates have tended to fall.

One of the notable injustices in the historiography of economic thought was Böhm-Bawerk’s brusque dismissal in 1884 of Turgot’s anticipation of his own time-preference theory of interest as merely a “land fructification theory.”⁷ Partly this dismissal stemmed from Böhm’s methodology of clearing the ground for his own positive theory of interest by demolishing, and hence sometimes doing injustice to, his own forerunners.⁸

The unfairness is particularly glaring in the case of Turgot, because we now know that in 1876, only eight years before the publication of his history of theories of interest, Böhm-Bawerk wrote a glowing tribute to Turgot’s theory of interest in an as yet unpublished paper in Karl Knies’s seminar at the University of Heidelberg.⁹

In the course of his demolition of the Ricardo–James Mill labor theory of value on behalf of a subjective utility theory, Samuel Bailey clearly set forth the concept of time preference. Rebutting Mill’s statement that time, as a “mere abstract word,” could not add to value, Bailey declared that “we generally prefer a present pleasure or enjoyment to a distant one,” and therefore prefer present goods to waiting for goods to arrive in the future. Bailey, however, did not go on to apply his insight to interest.¹⁰

In the mid-1830s, the Irish economist Samuel Mountifort Longfield worked out the later Austrian theory of capital as performing the service for workers of supplying money at present instead of waiting for the future when the product will be sold. In turn the capitalist receives from the workers

⁵ A.J.R. Turgot, *The Economics of A.J.R. Turgot*, Peter D. Groenewegen, ed. (The Hague: Martinus Nijhoff, 1977).

⁶ Turgot, *The Economics of A.R.J. Turgot*, pp. 158–59.

⁷ Eugen von Böhm-Bawerk, *Capital and Interest*, 4th ed. (South Holland, Ill.: Libertarian Press, 1959 [1884]), vol. 1.

⁸ Knut Wicksell, “Böhm-Bawerk’s Theory of Interest,” in Knut Wicksell, *Selected Papers on Economic Theory*, E. Lindahl, ed. (Cambridge, Mass.: Harvard University Press, 1958 [1911]), p. 177.

⁹ Turgot, *The Economics of A.R.J. Turgot*, pp. xxix–xxx.

¹⁰ Samuel Bailey, *A Critical Dissertation on the Nature, Measure, and Causes of Value* (New York: Augustus M. Kelley, 1967 [1825]).

a time discount from their productivity. As Longfield put it, “the capitalist pays the wages immediately, and in return receives the value of [the worker’s] labour, . . . [which] is greater than the wages of that labour. The difference is the profit made by the capitalist for his advances . . . as it were, the discount which the labourer pays for prompt payment.”¹¹

The “pre-Austrian” time analysis of capital and interest was most fully worked out, in the same year, 1834, by the Scottish and Canadian eccentric John Rae (1786–1872). In the course of attempting an anti-Smithian defense of the protective tariff, Rae, in his *Some New Principles on the Subject of Political Economy* (1834), developed the Böhm-Bawerkian time analysis of capital, pointing out that investment lengthens the time involved in the processes of production. Rae noted that the capitalist must weigh the greater productivity of longer production processes against waiting for them to come to fruition. Capitalists will sacrifice present money for a greater return in the future, the difference—the interest return—reflecting the social rate of time preference. Rae saw that people’s time preference rates reflect their cultural and psychological willingness to take a shorter or longer view of the future. His moral preferences were clearly with the low time preference thrifty as against the high timepreference people who suffer from a “defect of the imagination.” Rae’s analysis had little impact on economics until resurrected at the turn of the twentieth century, whereupon it was generously hailed in the later editions of Böhm-Bawerk’s history of interest theories.¹²

Time preference, as a concept and as a foundation for the explanation of interest, has been an outstanding feature of the Austrian School of economics. Its founder, Carl Menger (1840–1921), enunciated the concept of time preference in 1871, pointing out that satisfying the immediate needs of life and health are necessarily prerequisites for satisfying more remote future needs. In addition, Menger declared, “all experience teaches that we humans consider a present pleasure, or one expected in the near future, more important than one of the same intensity which is not expected to occur until some more distant times.”¹³ But Menger never extended time preference from his value theory to a theory of interest; and when his follower Böhm-Bawerk did so, he peevishly deleted this discussion from the second edition of his *Principles of Economics*.¹⁴

Böhm-Bawerk’s *Capital and Interest* (1884) is the *locus classicus* of the time–preference theory of interest. In his first, historical volume, he demolished all other theories, in particular the productivity theory of interest; but five years later, in his *Positive Theory of Capital* (1889), Böhm-Bawerk brought back the productivity theory in an attempt to combine it with a time-preference explanation of interest.¹⁵ In his “three grounds” for the explanation of interest, time preference constituted two, and the greater productivity of longer processes of production the third, Böhm-Bawerk ironically placing greatest importance upon the third ground. Influenced strongly by Böhm-Bawerk, Irving Fisher increasingly took the same path of stressing the marginal productivity of capital as the main determinant of interest.¹⁶

With the work of Böhm-Bawerk and Fisher, the modern theory of interest was set squarely on the path of placing time preference in a subordinate role in the explanation of interest, determining only the rate of consumer loans and the supply of consumer savings, while the alleged productivity of capital determines the more important demand for loans and for savings. Hence, modern interest theory fails to integrate interest on consumer loans and producers’ returns into a coherent explanation.

¹¹ S.M. Longfield, *The Economic Writings of Mountifort Longfield*, R.D.C. Black, ed. (Clifton, N.J.: Augustus M. Kelley, 1971).

¹² Böhm-Bawerk, *Capital and Interest*, vol. 1.

¹³ Knut Wicksell, “The New Edition of Menger’s *Grundsätze*,” in Wicksell, *Selected Papers on Economic Theory*, p. 195. And Carl Menger, *Principles of Economics*, James Dingwall and Bert Hoselitz, eds. (Glencoe, Ill.: Free Press, 1950 [1871]), pp. 153–54.

¹⁴ Wicksell, “New Edition of Menger’s *Grundsätze*,” pp. 195–56.

¹⁵ Böhm-Bawerk, *Capital and Interest*, vols. 1 and 2.

¹⁶ Irving Fisher, *The Rate of Interest* (New York: Macmillan, 1907) and *The Theory of Interest* (New York: Kelley and Millman, 1954 [1930]).

In contrast, Frank A. Fetter, building on Böhm-Bawerk, completely discarded productivity as an explanation of interest and constructed an integrated theory of value and distribution in which interest is determined solely by time preference, while marginal productivity determines the “rental prices” of the factors of production.¹⁷ In his outstanding critique of Böhm-Bawerk, Fetter pointed out a fundamental error of the third ground in trying to explain the return on capital as “present goods” earning a return for their productivity in the future; instead, capital goods are *future* goods, since they are only valuable in the expectation of being used to produce goods that will be sold to the consumer at a future date.¹⁸ One way of seeing the fallacy of a productivity explanation of interest is to look at the typical practice of any current microeconomics text: after explaining marginal productivity as determining the demand curve for factors with wage rates on the y-axis, the textbook airily shifts to interest rates on the y-axis to illustrate the marginal productivity determination of interest. But the analog on the y-axis should not be interest, which is a ratio and not a price, but rather the *rental price* (price per unit time) of a capital good. Thus, interest remains totally unexplained. In short, as Fetter pointed out, marginal productivity determines rental prices, and time preference determines the rate of interest, while the capital value of a factor of production is the expected sum of future rents from a durable factor discounted by the rate of time preference or interest.

The leading economist adopting Fetter’s pure time preference view of interest was Ludwig von Mises, in his *Human Action*.¹⁹ Mises amended the theory in two important ways. First, he rid the concept of its moralistic tone, which had been continued by Böhm-Bawerk, implicitly criticizing people for “under”-estimating the future. Mises made clear that a positive time preference rate is an essential attribute of human nature. Second, and as a corollary, whereas Fetter believed that people could have either positive or negative rates of time preference, Mises demonstrated that a positive rate is deducible from the fact of human action, since by the very nature of a goal or an end people wish to achieve that goal as soon as possible.

¹⁷ Frank A. Fetter, *Economic Principles* (New York: The Century Co., 1915), vol. 1 and Frank A. Fetter, *Capital, Interest, and Rent: Essays in the Theory of Distribution*, Murray N. Rothbard, ed. (Kansas City: Sheed Andrews and McMeel, 1977).

¹⁸ Frank A. Fetter, “The ‘Roundabout Process’ in the Interest Theory,” *Quarterly Journal of Economics* 17 (November, 1902): 163–80. Reprinted in Fetter, *Capital, Interest, and Rent*.

¹⁹ Ludwig von Mises, *Human Action: A Treatise on Economics*, 3rd rev. ed. (Chicago: Regnery, 1966).