

Marc Lavoie

FAIR RATES OF INTEREST AND
POST-KEYNESIAN ECONOMICS:
THE CANADIAN CASE

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Marc Lavoie
Full Professor
Department of Economics
University of Ottawa
Ottawa, Ontario
Canada K1N 6N5
E-mail: mlavoie@uottawa.ca
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introduction

In orthodox economics, the question about what constitutes a fair rate of interest makes no sense. In the loanable funds mainstream model, the equilibrium rate of interest ought to be found at the intersection of the demand and the supply of funds, represented by the rate of preference for the present of households and the marginal productivity of capital. In equilibrium, the rate of profit and the rate of interest are equated. There is no difference between the two concepts. This is the so-called Wicksellian natural rate of interest, on the basis of which, by analogy, Milton Friedman (1969) designed his natural rate of unemployment, which later became the NAIRU. In neoclassical theory, it is recognized that the market rate of interest, observed on the monetary and the financial markets, may differ from the natural rate of interest, but this discrepancy can only be temporary, for it generates destabilizing forces. If the market rate of interest is below its natural level, as when the measured rate of unemployment is below its natural level, inflation will accelerate. Monetary authorities thus have no choice: they must set rates of interest which are compatible with the natural rate.

It is well-known that Keynes himself was brought up to believe that the subtle discussions aimed at distinguishing the return on money-loans from the return to active investment were merely jesuitical attempts to find a practical escape from a foolish theory (Keynes 1936, p. 351). But Keynes finally realized that a proper approach to a monetary production economy must keep separate what the neoclassical theory has inextricably confused together, namely, the rate of interest and the marginal efficiency of capital (ibid, p. 352). This confusion has also been noted by Pasinetti (1981: 175), who points out that mainstream authors generally still take the rate of interest and the rate of profit as being the same thing.

Modern heterodox authors C the post-classical or post-Keynesian economists C

brought up in the tradition of both Sraffa and Keynes, have rejected the loanable funds approach and its WickSELLIAN natural rate of interest, the existence of which requires the assumption of full employment and faith in the aggregate production model that was shown to be unsound by the participants to the Cambridge debates on capital (Rogers 1989). As a consequence, post-classical economists have recognized that the rate of profit and the rate of interest are influenced by different factors. As a result, they have carefully identified different concepts of the rate of return on assets, which must be clearly distinguished. The first part of the paper is devoted to a short examination of these various concepts. The second part of the paper deals with one of these concepts, the fair rate of interest, a concept which has been left out from most current discussions of monetary policy. The meaning and the implications of the fair rate of interest, applied to the Canadian case, are given in the third part of the paper. It is argued in the conclusion that this application can be easily extended to other countries, and that monetary policy ought to be oriented towards a discussion over the relevant fair rate of interest, rather than assuming that market rates of interest cannot but hover around their natural levels.

1. distinguishing rates of profit and rates of interest

Post-Keynesians have come to see the necessity of distinguishing at least four concepts of rates of return.

First, there is the money rate of interest, as can be observed on markets. There is, of course, a large set of such rates: deposit rates, loan rates, commercial paper rate, three-month Treasury bills, ten-year bond rates, and so on. As a result of the rejection of the loanable funds approach, these rates are left without an anchor based on supply and demand. For post-classical economists, the anchor is left to conventions. In modern monetary systems, monetary authorities have the ultimate say on the convention. In most countries, central banks dispose of a monopoly on the reserves required by commercial banks to operate the banking system. As a result, the central banks are in a position to decide the level of the domestic overnight rate. This rate is the benchmark rate of the monetary system, all other rates adjusting to it, either quickly or gradually. The fundamental determinant of the rate of interest is thus the overnight rate, under the control of the central bank (in the States, it is the federal funds rate). All other rates adjust to it, either through market forces or administrative decisions. The spreads between these various rates and the benchmark rate, set by the central bank, reflect the liquidity preference (or animal spirits, or expectations of future rates) of the commercial banks and the various participants to the financial markets. As Smithin (1996: 93) puts it, "A role for Keynesian liquidity preference can be retained in this scenario, in that liquidity preference considerations may well periodically insert a wedge between those rates of interest which are more or less directly under the central bank control and rates elsewhere".

Whereas some neoclassical authors would agree that the central bank can determine short-term nominal rates of interest, few would go so far as to recognize that the central bank is able to set the level of real rates of interest, except in the short run. This is because neoclassical authors believe that over the long period the only sustainable real rate of interest is the one corresponding to the natural rate. On the other hand, as Smithin (1996: 93) puts it, "In the absence of a natural rate of interest, it can be argued that the central bank control over short real rates will ultimately influence the entire structure of interest rates in the economy, including long rates". This is why some post-Keynesian and Sraffian authors have argued that central banks have the ability to regulate the real rates as well as the nominal rates (Lavoie 1996, p. 277, and the references cited therein).

In mainstream models with money rates of interest, it is usually claimed that the short-term rate depends on the supply of money, and ultimately, given a base money multiplier, on the amount of reserves that monetary authorities decide to create. Post-Keynesians argue in reverse that both the money supply and the amount of base money are determined endogenously. In monetary systems where reserve requirements still exist, the post-Keynesian view does not appear

clear-cut. In monetary systems of the overdraft type, as Hicks (1974) would call them, the endogeneity of credit and money is more obvious. In the new Canadian monetary system, for instance, there are no compulsory reserves. As is clearly explained by the monetary authorities, the actual amount of reserves, now called settlement balances, held by banks are not determined whatsoever by the level of the bank deposits, but rather by the discrepancy between the flows in-going and out-going for each individual bank, i.e., by the daily variance in the settlement balances of each bank. Normally, these settlement balances always add to nil, and hence there is a continuum of overnight rates that could achieve equilibrium. It is the responsibility of the central bank to choose the actual rate C the bank rate C around which the overnight rate will adjust, depending on the distribution of individual settlement balances and the expectations of bankers (Clinton 1997).

The second concept among rates of return is the normal rate of profit. This rate corresponds to the target rate of return which large corporate firms use to set their profit margins. This rate is equivalent to the uniform rate of profit which Sraffians and other classical economists use in their theories of value. It is the rate of profit, but seen from the supply side, which accountants in firms often call the target rate of return. This normal rate of profit corresponds to the rate of profit that would be realized if firms were operating on average at their standard rates of capacity utilization. Obviously, this need not be the case over the short and the medium run, and therefore, to a large extent, the normal rate of profit is also the result of a convention. The normal rate of profit is said to be influenced by three main factors: the secular rate of interest, the bargaining power of labour, and the realized rate of profit. The realized rate of profit is thus the third concept that must be taken into consideration. The realized rate of profit can be decomposed into three components: the normal rate of profit, the rate of utilization of capacity, and the inverse of the capital to capacity ratio (the organic composition of capital). The realized rate of profit thus depends on each of these three elements. In its Cambridge equation version, the realized rate of profit essentially depends on the rate of growth of the economy. It has also been shown recently that the overall and the individual rates of return on shares follow the vagaries of the realized rates of profit of the overall economy and those of the individual companies (Shaikh 1996).

If there are some reasons to believe that the normal rate of profit and the rate of interest considered permanent should move up and down together, there is no reason to think that the realized rate of profit and the trend interest rate should move together. This viewpoint is not shared by all post-Keynesians, however, since some of them still argue that the trend rate of interest is heavily influenced in the long run by the rate of profit that can be obtained on physical investment. In some circumstances, there may be some positive correlation, however, since high realized rates of profit may be associated with fast-growing economies. A highly expansionary economy may provoke fears of inflation among bureaucrats of the central banks, and this may lead them to change the convention, by increasing the base rate of interest, and hence the real rate of interest, in the hope of slowing down the economy and thus being able to control inflationary forces. In addition, fast growing economies, relative to other countries, may run into trade balance problems, which may also induce the central bank to hike interest rates up, in the hope of avoiding the depreciation of the domestic currency, and hence avoiding imported inflation (a behaviour related to the so-called Thirlwall's law).

There is however a fourth concept, which is the main object of the present paper, the concept of the fair rate of interest. The fair rate of interest pertains to the rate of interest that will leave unchanged the distribution of income between interest and non-interest income regardless of lending and borrowing activities.

2. defining the fair rate of interest

Throughout much of human history, political economists and other learned thinkers have sought to identify the rate of interest that could be socially justified on equity considerations and that would be fair to both the lender and

the borrower. Historically, both the philosophers of antiquity and the scholastic thinkers of the Middle Ages showed great concern about what should be the interest rate norm that ought to guide decisions regarding justice and social order.

In ancient Greece and Rome, as well as in Europe of the early Middle Ages, observers perceived an economy following a stationary path. Since the dominant agricultural activity was carried out without the intervention of money, except for limited exchanges at the periodic village fairs, money was nothing but a barren token that could not justify a return for its use. To exact more than the original principal of the loan meant a form of exploitation of human need that the medieval schoolmen classified as usury. A positive rate of interest was perceived to be a socially destructive force, whose effect would be to tip the distribution of income and wealth in favour of the community's money lenders (Noonan 1957).

As these ancient economies began to grow commercially and credit emerged for the purpose of financing a production that would generate a financial return to the borrower, the Aristotelian view of interest came under severe attack. By the late Middle Ages, debates over a fair rate of interest became common among scholastic writers, some of whom ultimately espoused a productivity theory of interest. Since productive activities require capital goods that generate a net surplus in production, those who provide the financial instruments to secure them ought to be rewarded for having allowed others to reap a return from their abstinence. In the hands of the classical and neoclassical economists, such views formed the essence of the loanable funds theory whose objective was to provide an explanation of the equilibrium rate of interest, the natural rate of interest. There were writers who continued to dwell on the concept of the fair rate, but very few authors have pursued the matter over the last decades. The concept of a fair rate of interest has resurfaced under the (unfortunate) appellation of the natural rate of interest. Owing largely to the work of Luigi Pasinetti (1981, ch. 8; 1993, ch. 6), the notion of the fair rate of interest has been revived and given a very precise meaning by Pasinetti (1981, p. 174): the fair rate of interest stems from the principle that all individuals, when they engage in debt/credit relations, should obtain, at any time, an amount of purchasing power that is constant in terms of labour (a labour theory of income distribution). The fair rate of interest thus maintains the purchasing power, in terms of command over labour hours, of funds that are borrowed or lent, and preserves the intertemporal distribution of income between borrowers and lenders. The fair rate of interest, in real terms, should be equal to the rate of increase in the productivity of the total amount of labour that is required, directly or indirectly, to produce consumption goods and to increase productive capacity. In other words, this rate is a correctly measured growth rate of multi-factor productivity. In an economy where the rate of profit remains constant, this growth rate would simply equal the growth rate of real wages. With price inflation, the fair rate of interest would be equal to the average rate of wage inflation, i.e., the growth rate of overall productivity plus the rate of price inflation.

A numerical example may help to grasp the notion of the fair rate of interest. Take an economy with a 5% inflation rate. Suppose that the average wage is initially \$10 an hour. Suppose furthermore that a borrower contracts a \$10,000 loan. This person has thus borrowed the equivalent of 1,000 hours of labour-time. Suppose now that the average real purchasing power, i.e., total factor productivity, has risen by 2%. Nominal wages thus have risen by 7%, reaching \$10.70 per hour a year later. If the rate of interest charged to the borrower is also 7%, i.e., if it is equal to the growth rate of overall productivity plus the rate of price inflation, the borrower will have to reimburse an amount of \$10,700 the next year. However, since the average nominal wage rate has now risen to \$10.70 an hour, the amount given back by the borrower is still equivalent to 1,000 hours of labour-time. As long as the actual rate of interest is equal to the fair rate of interest, as defined above, the purchasing power that is being temporarily exchanged between the borrower and the lender remains constant in labour time.

Pasinetti's work provides a new perspective on why initially scholastic writers may have been so opposed to any positive rate of interest. In their days, both price inflation and the rate of technical progress were presumed to be close to zero. If this was so, it would ensue that the fair rate of interest ought also to be zero. This explains why both the Coran and the Church forbade interest payments: in a world with little inflation and little technical progress, the fair nominal interest rate was zero. By contrast, in many industrialized countries, actual real rates of interest, for assets of the lowest risk, have been around 5% for the last fifteen years, with little or even no increase in overall productivity. This suggests that current interest rates have greatly distorted income distribution in favour of the rentier class. Some Canadian examples of this distortion are offered in the next section.

3. fair rates and the exploitation of the borrower: an applied view

While the bureaucrats at the Bank of Canada, and no doubt in other central banks elsewhere, seem to attach great importance to the possible redistribution effects of inflation, in particular unexpected inflation, they do not seem to worry a single bit about the changes in income distribution induced by their low-inflation austerity policies. These changes are enormous, and, following the lead of Pasinetti, are perhaps best measured and appreciated by referring to hours or weeks of labour work.

Take an individual borrowing \$1000 for ten years, with a promise to reimburse all of the capital and interest at the end of the tenth year, without making any payment in-between. Suppose that this \$1000 is equivalent, when the funds are borrowed, to 100 hours of work (the hourly wage of this person would then be \$10). Suppose that this (lucky) person is able to borrow at 1% above the long-run rate on federal bonds. For a loan taken in 1965, the amount to be reimbursed would be \$1380 in constant dollars. By contrast, for a loan taken in 1985, the amount paid back would be \$2000 in constant dollars. In terms of hours of work, one needs to take into account the increase in the purchasing power of labour work, i.e., the increase in hourly wages compared to the consumer price index. This increase for each decade is indicated in the fourth column of Table 1: it clearly shows that total-factor productivity increased substantially between 1965 and 1974, while there was hardly any total-factor productivity growth between 1975 and 1994 (approximately 0.1% per year between 1985 and 1994!). Taking into account this increased purchasing power, we see that the 1965 borrower would only need to pay back 106 hours of labour time, approximately the equivalent amount of labour time borrowed. By contrast, the 1985 borrower needs to pay back 198 hours of labour time, twice the amount of labour time borrowed!

Table 1

One might argue that the cases discussed above exaggerate the extent of income redistribution, by assuming away the possibility of reimbursing part of the loan before the end of its term. Take the more concrete case of a standard mortgage loan, as shown in the enclosed table. It is assumed that an average house (in Ottawa) is being purchased by someone earning the average wage, the house being entirely financed by a loan, amortized over a period of 15 years. For the home buyer of 1961, the average price of a house was \$16 070, while the average weekly wage in Canada was \$70.4. The price of a house was thus equivalent to 228 weeks of labour time. The mortgage rate then was 6%, fixed for the entire period. With the assumption that the wage income of this buyer has increased at the same rate as that of the average Canadian worker, it would have taken the equivalent of 244 weeks of work to reimburse the loan and pay the house. In those days, the buyer-borrower thus ultimately paid the just value for his or her home. The spread, in labour time, between the cost of a house for an owner who borrows and another owner who pays it cash is only of 7.9%.

Table 2

In 1969, it was still possible to obtain long-term mortgage loans, at a rate of approximately 6.5%. In 1969, the cost of an average house bought cash was equivalent to 242 weeks of labour time, at the average weekly wage. Someone who would have bought the same house with a 15-year mortgage would have paid, at the end of the 15 years, the equivalent of 228 weeks of labour time, based on the

mean weekly wage rate over these fifteen years, between 1969 and 1984. The amount of labour time required from the mortgage buyer would then have been 5% inferior to the amount of time required from the cash buyer. Conditions then were very slightly favourable to the borrowers, the realized interest rate being very slightly below the fair rate of interest

As of 1973, with rates of interest exceeding 9%, mortgage loans based on a five-year fixed rate of interest became the norm rather than the exception. A 1973 home buyer, who wished to amortize the loan over a fifteen-year period, was thus forced to renew the loan every five years, i.e., in 1978 and in 1983. Still, for a 1973 home buyer, there is hardly any difference between paying cash and taking a mortgage, the spread in labour time being only 10%.

The situation started to evolve with the 1978 home buyers. With five-year fixed terms, borrowers had to renew their loans in 1983 and 1988. Whereas the cash price of a house remains more or less constant, at 248 weeks of labour time, the cost of a house paid through a mortgage shoots up to 328 weeks of labour time, the spread reaching 32.2%. The situation of borrowers keeps deteriorating thereafter.

From 1979 on, mortgage loans with rates fixed for a single year started to appear on financial markets. Mortgage loans are made for terms ranging between one to five years. We may thus consider two types of borrowers: one borrows on rates fixed for one year, reducing the amortization period by one year whenever he or she renews the loan; the other borrower prefers to know the mortgage costs in advance, and takes mortgages the terms of which are fixed for five years. In general, since one-year mortgage rates are lower than five-year rates, the situation of the short-term borrower should be better than that of the longer-term borrower. Still the situation of the mortgage borrowers of the 1980s and 1990s is simply catastrophic, compared to the households of previous decades and compared to households that can afford to pay their houses cash.

Starting with 1981, when borrowers had to face mortgage rates that briefly reached 20%, the cash cost of average houses in the Ottawa area moved between 203 and 280 weeks of labour time, at the average weekly wage. For a household that decided to borrow on one-year fixed rates, the cost of the same average house in the 1980s and 1990s fluctuated between 319 and 409 weeks of work, i.e., a spread of 46 to 57 % above the cash price. Households that chose to borrow for a five-year fixed term had to pay the equivalent of 365 and 440 weeks of labour time, i.e., they had to pay premiums of 67 to 80 %. Many observers proudly note that interest rates have fallen since the early 1990s, at least in nominal terms. However, even by supposing that nominal wages will go up by 2% a year from 1998 on, and that rates of interest will remain at 6 %, two hypotheses that may under-estimate the actual cost of borrowing in the future, it still remains that a home buyer in 1990 will have to pay the equivalent of 409 weeks of labour time for a house that was worth only 280 weeks of labour time when paid cash (and which is only worth 240 weeks of labour time in 1997).

Similar hardship affects starting small and medium businesses. Under these conditions, it is not surprising to see so many financially-distressed businesses, middle-class households, and young individuals. No wonder they have so much difficulty paying off their debts. They are being financially exploited by the rentiers. And here one does not even refer to the rates of interest that are charged by profit-hungry banks to those who are not paying off their credit cards. The situation since 1980 is what earlier religious leaders called usury, and this is what Marx called exploitation. But clearly, there is no obligation for an efficiently running capitalist system to function on the basis of usury and exploitation. There was no such usury and exploitation in the 1965-1974 decade and neither was there any during the 1946-1964 period, since real rates of interest were negative over the 1946-1954 decade, while the 1960s experienced large improvements in standards of living. As long as real rates of interest are approximately equal to rates of increase in total productivity growth, there is no exploitation of the borrower by the lender.

The bureaucrats at the Bank of Canada and other central banks keep telling us how successful they have been in fighting back inflation over the last ten years. There are probably substantial gains to such victories with three-digit

inflation. However, with single-digit inflation, as was the case in Canada in 1989 when the Bank of Canada launched its second large-scale attack against inflationary forces, the gains are more rhetorical than real. The true impacts of high real-interest rates policies of industrialized central banks should be reassessed: the non-elected bureaucrats of central banks have engineered recessions in the early 1980s and 1990s; they have forced governments to get into primary surplus budget positions; and hence, by doing so, they have forced governments to jeopardize social, education and health programs. Finally, central bankers have imposed a gigantic redistribution of income, from young households and entrepreneurs towards older households and rentiers.

conclusion

I have claimed that within the context of a monetary economy of production, devoid of a natural rate of interest, central banks are in a position to set the real rate of interest at the level that they see fit. Within such an economy, which corresponds to the real world, to seek a fair rate of interest becomes a relevant question. We have seen how a fair rate of interest could be defined, following the definition proposed by Pasinetti: fair rates preserve the intertemporal distribution of income, measured in labour time, between borrowers and lenders. We have also measured the extent of the exploitation against borrowers, when real rates of interest exceed their fair levels, as it has been the case in Canada and in most other major industrialized economies since the early 1980s. Elsewhere, I have elaborated on the consequences of unfair rates of interest for the business cycle: all the official recessions of the Canadian economy between 1946 and 1983, with one exception, can be explained by the excesses of the real rate of interest over productivity growth (Lavoie and Seccareccia 1988). Sticking to a fair rate of interest, rather than to a rate of interest designed to keep inflation at near-zero levels, is thus in the best interests of workers and entrepreneurs.

Other authors have sought to define a rate of interest that would be fair to all classes of society and that would boost the economy. Smithin (1996: 6) has argued that we should go back to the earlier compromise of the 1950s and 1960s, and that central banks should target after-tax real rates of interest at low but positive levels of 1 per cent or 2 per cent (Smithin 1996: 86). What the present analysis is saying is that such rates were justified in the late 1950s or in the 1960s; but such rates are not justified now, at least in Canada, where rates of growth of multi-factor productivity have barely exceeded zero per cent.

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Table 1

Borrowing at 1% over the long-term rate on Canadian federal government bonds, with a one-shot repayment at the end of ten years

Year	Loan	Increase in purchasing power over the decade	Repayment
	In dollars	In labour hours equivalent	In constant dollars
		In labour hours equivalent	
1965-1974	1000100	30%	1380106
1975-1984	1000100	4%	1490143
1985-1994	1000100	1%	2000198

Table 2

Mortgage loan, initially amortized over 15 years, for an average-priced house, at one-year mortgage rates, for a worker with an average wage rate

Year of purchase	Type of mortgage: rate fixed for:	House price in weeks of labour time	Total cost of mortgage loan in weeks of labour time	Spread between the cash price and the mortgage cost in labour time
1961	15 years	228	246+	7,9 %
1969	15 years	242	228!	5,8 %
1973	15 years	266	287+	10,8 %
1978	15 years	248	328+	32,2 5
1981	15 years	203	365+	80,0 %
1983	1 year	319+		57,1 %
1983	15 years	225	386+	71,5 %
1986	1 year	334+		48,4 %
1986	15 years	263	440+	67,6 %
1990	1 year	396+		50,5 %
1990	1 year	280	409+	46,0 %
1997				
240				

Sources: Real Estate Board of Ottawa-Carleton, MLS Residential Sales; Statistics Canada, matrix 1433, and ordinary mortgage rates.