

INTEREST RATES AND GROSS PROFIT MARGINS IN THE RECENT EXPERIENCE OF ADVANCED CAPITALISM

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1. The monetary determination of the rate of profits: a summing up

According to the monetary explanation of distribution, as elaborated over the past 25 years on the basis of a well-known suggestion by Sraffa¹, the normal rate of profit would be arrived at in each sphere of production by adding up two autonomous components: the rate of interest on long-term riskless financial assets, plus a normal rate of profit of enterprise, viewed as a component of normal production costs and reflecting objective (or widely perceived as objective) elements of risk attached to each different productive employment of capital. Since the normal margins for profit, given production techniques, depend on normal profit rates, the same two variables, the rate of interest and the rate of the profit of enterprise, would govern also the course of net normal profit margins in the different production spheres. For any given set of profits of enterprise, the long-term rate of interest would thus act in the economy as the regulator of the ratio of prices to money wages². Once the normal profit of enterprise in each sphere of production is taken as given, in that it is determined separately from both the rate of interest and the rate of

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¹‘The rate of profits, as a ratio, has a significance which is independent of any prices, and can well be ‘given’ before the prices are fixed. It is accordingly susceptible of being determined from outside the system of production, in particular by the level of the money rates of interest’ (Sraffa 1960, p. 33).

² Assuming the rate of interest used in the calculation of normal profits and normal costs to be the rate on long-term government bonds, or an arithmetical average of this rate and the ordinary interest rate on reasonably secured long-term private loans, a firm which employed borrowed capital obtained at a higher rate would earn a lower than normal profit of enterprise.

profit, attention is focused in this approach on the rate of interest. As in Marx and Keynes, this variable is not regarded as governed by a pre-determined ‘natural’ rate of interest or normal profitability of capital. It is rather conceived as a policy-controlled variable: ‘a conventional monetary phenomenon’, as Keynes would name it (Keynes 1937), ‘determined from outside the system of production’, as Sraffa would add, which, in Marx’s words, ‘cannot be determined by any law’ (Marx 1894, p. 362). The fact is then taken into account that the direct outcome of wage bargaining is a certain level of the money wage, while the level of the real wage prevailing in any given situation is the final result of the whole process by which distribution between wage earners and profit earners is determined. Given the money wage and production techniques, any lasting change in the rate of interest is bound to cause, by the competition among firms within each industry, both a change in the same direction in the general level of prices and a change in relative prices; so that the real wage, while rising or falling in terms of any product, will rise or fall to a different extent in terms of each different product (cf. Pivetti 1991, esp. chs. 2, 3, 4, 6 and 11).

There is no contrast between this explanation of distribution and the Marxian explanation centred on the ‘respective powers of the combatants’ (Marx 1898, p. 402). An explanation of distribution based on such powers requires, first of all, that the social-institutional channels are analyzed through which they act – which should permit one, in turn, to identify the distributive variable on which they discharge themselves in the first place, in each concrete situation; second, that the main factors upon which those respective powers depend are selected and discussed. The monetary view of distribution deals of course with the former of these two questions³. Monetary policy and wage bargaining come out of it as the main channels through which class relations act in determining distribution, and they are seen as tending to act primarily upon the profit rate, via

³ In a recent contribution of mine (see Pivetti 2013), I have dealt with the question of the ultimate determinants of the parties’ relative strength, in particular with the main causes of the breakdown over the past 30 years of wage earners’ bargaining power throughout advanced capitalism.

the money rate of interest, rather than upon the real wage as maintained by both the classical economists and Marx.

For the connection with the Marxian standpoint, the most relevant feature of the monetary explanation of distribution is that interest-rate policy decisions are viewed in it as subject to a wide range of policy objectives and constraints, with which, to a very large extent, the ‘respective powers of the combatants’ are strictly intertwined. Consider, for example, a country that adheres to a fixed exchange-rate regime *cum* financial liberalization, and is compelled by it to stick to a comparatively dear-money policy. Concern would then mount over the impact of dear money on domestic costs and the competitiveness of domestic products, and this, in turn, would put pressure on wage earners to restrain wage demands so that cheap labour can compensate for dear money. At the same time, the high cost of servicing government debt would put pressure on budgetary policy, with the formation of primary surpluses tending to be pursued to service the debt and check its rise. Now, it seems hardly conceivable that such a series of events – from the abolition of restrictions on capital movements to the dear money policy and the budgetary stringencies – could come about and be allowed to persist, unless wage earners of the country concerned happened to find themselves in an increasingly weak position. Wage earners, by contrast, would be in a relatively strong position if, in the face of rising money wages and increases in the price level, objectives and constraints of a non-distributional character compelled the monetary authorities not to raise nominal interest rates. In such a situation distribution would tend to change in favour of wages, because competition among firms within each industry causes the rate of profit to adapt to the *real* rate of interest (the interest rate net of inflation); it is in fact

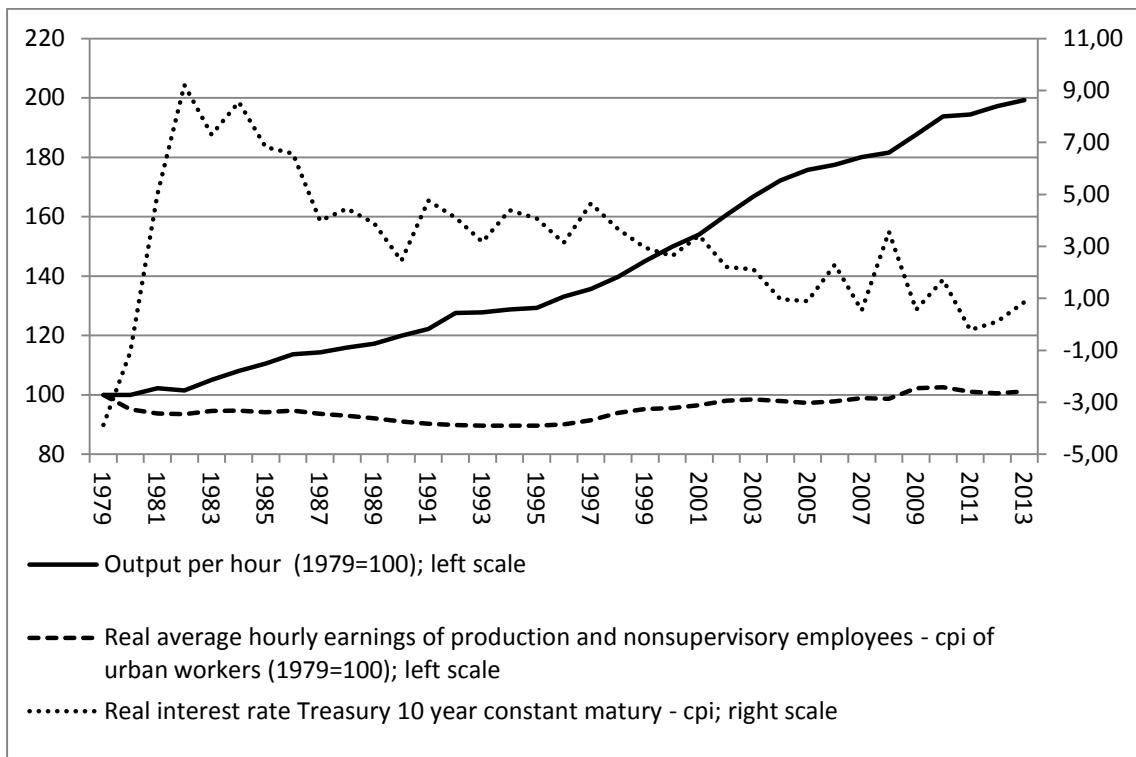
the latter, not the nominal rate, which constitutes the actual opportunity cost of any capital, be it borrowed or not, invested in production⁴.

2. Advanced capitalism's recent experience as a case of non-parallel course of profit and interest and two possible explanations

The fact is, however, that application of the monetary theory of distribution to actual experience of advanced capitalism over the past 3 decades – especially to the US experience – appears somewhat problematic. As is known, it is an experience marked by a significant change in the distribution of income between wages and profits in the latter's favor, and while it is true that from the beginning of the 1980s up to the end of the century the real long-term rate of interest was on average significantly higher than in the preceding 20-year period – 4,8% in 1980-2000, as against 2% in 1960-1980 (excluding the two sub-periods of exceptionally high inflation 1973-1974 and 1978-1980) – it is nonetheless equally true that over the past 30 years that rate has experienced a markedly declining trend, which does not appear to have contributed to the decline in the ratio of prices to money wages and the rise in real wages. On the contrary, as shown in Fig. 1, in the period since 1979 the course of real average hourly earnings for all production non-supervisory employees in private industries has been on average especially sluggish, as compared to the rise in real output per hour, notwithstanding the declining trend of the real long-term rate of interest. Over a sufficiently long period of time, in other words, interest and profit appear to have been determined independently of each other.

⁴ On the question of real vs nominal interest within the framework of the monetary theory of distribution, see Pivetti 1990 (with the attached comments and replies); Pivetti 1991, ch. 6; Stirati 2001, pp. 430-9.

Fig. 1 The real interest rate and the earning-productivity gap (US private sector)



Sources: Bureau of Economic Analysis, Bureau of Labor Statistics, Federal Reserve Board

But the difference between profit and interest constitutes the rate of the profit of enterprise, or business profit, which, in the long run, cannot be high or low independently of the elements of risk that justify its existence as a normal or permanent phenomenon – as a component, that is to say, of normal production costs⁵. Hence, the non-parallel course of profit and interest over the period under consideration should be explained, logically, in either one of the following two ways:

a) an independent surge in normal profits of enterprise, and/or in other components of gross profit margins (more on this below), led the monetary authority to partially offset it through a

⁵ Contrasting Marx's views on the relationship between profit and interest, I have argued elsewhere (see Pivetti 1991, pp. 66-9, and Pivetti 2014) that through the competition among firms in each production sphere the rate of the profit of enterprise must tend towards an adequate or normal level, determined by any real or fancied disadvantage the productive employment of capital in that sphere may present, relative both to interest-bearing capital and to the other productive employments of capital. If profits of enterprise did not cover objective elements of 'risk and trouble', or elements regarded as objective by the majority of investors, it would be hard to escape the conclusion that, apart from the possible presence of monopoly elements in this or that sector of the economy, profits of enterprise must tend to be nil, since competition between the producers would tend to equalize profit and interest.

cheaper money policy, so as to impede a fall of real wages; b) cheap money itself, dictated to the monetary authority by objectives and constraints of a non-distributional character, contributed to the surge in the non-interest part of gross profit margins – a surge that more than compensated for the negative impact of declining interest rates on the price level/money wage ratio. Let us discuss this alternative in some detail.

3. On the rise in the non-interest part of gross profit margins

The normal price of output equals wage costs plus interests and normal profits of enterprise on the capital employed in production, plus an amount equal to the capital used up or destroyed in the production process, plus top-management compensation. One can thus write the following equations for value added per unit of labour (1) and for gross profit margin (2), the latter defined as the ratio of value added per unit of labour to the money wage rate:

$$pa = w + k(i + r_e + d) + m_r \quad (1)$$

$$\frac{pa}{w} = 1 + \frac{k(i + r_e + d) + m_r}{w} \quad (2)$$

where p is the unit price of output (a composite good representative of the gross output of a closed economy), a is output per unit of labour, w is the money wage rate, k is capital per unit of labour, i is the rate of interest (the pure remuneration per unit of capital), r_e is profit of enterprise per unit of capital, and d is depreciation per unit of capital. In equation (2) the gross profit margin includes, besides the gross remuneration of capital $k(i + d)$ and profit of enterprise,

also top-management compensation – m_r , a magnitude assumed to be given in absolute terms, independently of the amount of capital employed in production.

Now, an increase over the past 30 years in the non-interest part of gross profit margins seems to be confirmed by the available data⁶, and it has been widely acknowledged as far as kd and m_r are concerned. A shortening of the average life of capital equipment is likely to have contributed to the increase in depreciation expenses (cf. e.g. Council of Economic Advisers 1995, p.53). Arguably, the phenomenon was linked to the diffusion over the past 30 years of ICT technologies and the connected increase in the relative weight of the services producing sector⁷. As to m_r , an astonishing marked increase over the past 3 decades in top-management compensations, especially in the United States, has become a well-known feature of advanced capitalism. It has been convincingly interpreted in terms of non-market mechanisms, such as ‘social norms regarding inequality’ and the acceptability of very high compensations: a significantly reduced social, fiscal and union pressure to contain them would have greatly enhanced the top managers’ capability to increase their own compensations (see Piketty and Saez 2003, pp. 34-5; see also Piketty 2013, pp. 524-29). As a result of the surge in these compensations, they have ended up constituting a larger fraction than in the past also of top incomes in their entirety (cf. Piketty and Saez 2003; Kopzuc and Saez 2004; Kennickell 2009 and Atkinson *et al.* 2011)⁸.

⁶ According to BEA’s data, the ratio between net interest payments and corporate profits (gross of net interest payments and consumption of fixed capital) per unit of output fell from 20,3% in 1990 to 11,1% in 2012; the consumption of fixed capital in percentage of the price per unit of output was 15% on average in 1951-1980, against 20% in 1981-2010.

⁷ On the connection between ICT investment and the enlargement of the service sector, see Barba and Pivetti 2012, pp. 130 and 133.

⁸ Over the years, reduced social, fiscal and union pressure to contain top-management compensation clearly owed much to an increasing capability on the part of top managers and top-income earners to purchase the power needed to induce the acceptability of very high compensation (more generally of rising income inequality) and to diffuse the consensus explanation of the phenomenon. According to this explanation, an unprecedented wave of ‘skill biased’ technological change would have rapidly raised the earnings of individuals with more skills, as measured, for example, by education. An explanation for the surge in compensation for the ‘working rich’ along these lines would require some independent and unambiguous evidence that ‘skill biased’ technological change did actually accelerate

But let us focus here on the rate of the profit of enterprise or business profit, the more problematic of the 3 variables that make up the non-interest part of gross profit margins, and see whether, as with respect to the rises in depreciation expenses and top-management compensations, one can think of a rise in r_e over the period under consideration which occurred independently of interest-rate policy. The latter could then be reasonably conceived as having ultimately been dictated by a real-wage constraint: in terms of equation (2) above, given w and a , one could reasonably postulate that, in the face of independent increases in the values of kd , m_r and r_e , by lowering the policy-controlled variable i the monetary authorities aimed at reducing ki , thereby checking the rise in $\frac{pa}{w}$ and the consequent fall of the real wage.

Intuitively, one might readily acknowledge that the risk of productively employing capital – hence r_e – must have risen significantly within advanced capitalism in the period since 1980, owing to globalization and the policy shift away from full employment to fighting inflation. Indeed, with globalization and the abandonment of policies persistently oriented towards full employment, firms in the different production spheres could no more reasonably count upon a stable growth of the demand for their products and of their activity levels. Greater volatility was introduced throughout the system in rates of utilization of capacity and in actual returns on capital employed in production⁹.

markedly in the last 3 decades, relative to earlier periods, and that since 1980 the relative demand for college graduates actually grew faster than during the prior 30 years. But such evidence is lacking (see on this Card and DiNardo 2002; Autor *et al.* 1988, pp. 1180, 1185, 1203; DiNardo and Pischke 1997; and Mishel *et al.* 2009), and it appears most likely that the idea of a marked acceleration of skill biased technological change in the period since 1980 has been *inferred* from the very observation of the marked increase which occurred in top compensation.

⁹ With reference to the experience of advanced capitalism since around 1980 up to the crisis, one can say that a likely positive influence on investment initially exerted by an epoch-making policy shift – an improved ‘state of confidence’ among investors due to the change in the parties’ relative strength, with higher rates of return being expected on any investment project – was eventually more than compensated for by the reduced leverage of final demand (see Barba and Pivetti 2012).

Globalization and the policy shift did increase the weight of finance and insurance in the economy. This occurred through various channels. The economic and political weight of the financial services industry was greatly augmented both by financial liberalization and by overall deflationary policy courses, while trade liberalization and rapidly increasing import and export flows fuelled the enlargement of the insurance sector through the rising incidence of exchange-rate risks. The weight of finance was increased also by processes of concentration – by a surge in acquisitions prompted by the policy shift and the consequent overall slackening of demand growth. Finally, finance and insurance benefited greatly from the general shift away from traditional defined-benefit public pension systems to fully-funded personal account-based systems, in which individuals accumulate assets.

Now, provided that there are monopoly elements in the financial-services industry, its increased weight in the economy would have brought about an increased weight of business profits in total value added, as well as a rise in the ratio of total value added to money wages, even if business profits per unit of capital employed in the industry had not changed in the face of the increased relative demand for its services. It seems, however, that this was hardly the case, as suggested by the fact that, according to BEA's data, from about 1985 up to the outbreak of the crisis the industry's corporate profits as a percentage of total domestic corporate profits rose significantly more than the share of the financial-services industry in total value added (about three times, as against two times). The general point here is that the very nature of finance and insurance tends to make them a 'monopoly business', with the corollary that a rising relative demand for their services tends to resolve itself also in a rise in the ratio of total value added to money wages¹⁰.

¹⁰ Over the past 3 decades, hardly any new entry occurred in the small group which makes up the core of the US financial-services industry. It has been pointed out that from about 1985 onwards the number of banks fell

4. On a likely dependence of the rise in business profits on interest-rate policy: a phenomenon devoid of any general validity

But the rise in r_e may have come about through a different route. It would still have largely reflected an increased incidence in total value added of business profits accruing to the financial-services industry, except that their increased incidence over the period under consideration would have eventually been fed, to a significant extent, by interest-rate policy itself, in the context of a growth process based on the expansion of private debt. As has been argued elsewhere (cf. Barba and Pivetti 2009), especially from 1995 up to the outbreak of the crisis the objective to protract the rise in consumption through continued expansion of household indebtedness led to a policy of progressive lowering of interest rates. Thanks to that policy, the increase in the ratio of debt to disposable personal income (DPI) was accompanied in the USA by an increase also in the ratio of household net worth to disposable income, owing to the rise in prices of securities and in the value of houses brought about by the downtrend in long-term interest rates. Moreover, as interest rates kept on falling, the debt-service burden, as measured by debt service as a share of DPI, did not rise – indeed, this share remained below the value it had reached at the end of the 1980s, notwithstanding the continuous rise in the overall household debt and in its ratio to DPI. Declining interest rates, in sum, succeeded in containing over several years the share of DPI of indebted households required to service the increasing outstanding stock of their debt, thus significantly protracting the macroeconomic sustainability of a massive process of substitution of loans for wages (see *ibid.*, pp. 127-29).

Within this framework, the US policy of progressive lowering of interest rates could hardly be thought of as having been dictated by a real wage constraint. Though, parallel to the decline in interest rates, an upward trend in real wages was actually brought about in the USA over the

significantly, so that the US banking industry actually experienced increased concentration (cf. Tregenna 2009, pp. 609-13).

second half of the 1990s¹¹ - without which household indebtedness would have arguably grown still more rapidly – that change in the trend of wages would have been but a side-effect of the cheap-money policy, whose primary objective would instead have been that of delaying for as long as possible the *rede rationem* of recourse to household debt as the chief demand management tool¹².

Our analysis so far of the behavior of the variables d , m_r , and r_e can account for the divergence between interest rates and profit margins which occurred in actual fact. In other words, independently of the circumstances by which the rises in d , m_r and r_e where brought about, increases in the non-interest part of gross profit margins do explain why the rate of interest and the ratio of prices to money wages did not tend to move in step in the period under consideration (account having been taken of the rise in output per hour). There is no doubt, however, that to the extent that the behavior of r_e was actually linked to that of i the monetary theory of distribution would find itself somewhat ill at ease. Indeed, the concept of the rate of interest as the regulator of the ratio of prices to money wages implies assuming that lasting changes in the rate of interest do not tend to be associated with opposite changes in the normal profit of enterprise; it is necessary to assume, that is to say, that the remuneration for the risk of productively employing capital is independent of the rate of interest and is a sufficiently stable magnitude (Pivetti 1991, p. 24). But, firstly, the likely dependence of the rise in r_e also on the fall of i , as discussed above, was linked to the presence of monopoly elements in the financial services industry and the increased incidence in total value added of its business profits, fed also

¹¹ Cf. on this Joint Economic Committee 2003, p. 16; see also Juhn *et al.* 2002, and Mishel *et al.* 2003, and Fig. 1 above in the text.

¹² From this point of view, the US policy of progressive lowering of interest rates in the decade that preceded the outbreak of the crisis would be put on the same footing as the policy efforts to involve an increasing number of wage and salary earners in the indebtedness process – efforts which produced over those 10 years the expansion of the so-called subprime loans.

on the very rapid rapid expansion of private debt. Secondly, no general validity can be attributed to an inverse relationship between i and r_e such as that under discussion: the presence of monopoly elements in the financial services industry notwithstanding, no such an inverse relationship could possibly have occurred if, for example, the growth process had been led essentially by expansionary budget policies and the rise in public debt.

5. Interest-rate policy and the real wage constraint

The concept of the rate of interest as a policy variable which, given production techniques and the values of r_e and m_r , governs the ratio of prices to money wages, does not imply postulating that at all times and places interest-rate policy is dominated by the distributive struggle between wage earners and profit earners. A decisive part has clearly been played in several concrete situations by objectives and constraints of a non-distributional character, such as public debt management objectives or balance of payments and exchange rate constraints. And it has just been suggested that, with respect to the pre-crisis experience of advanced capitalism, a progressive lowering of interest was eventually imposed to the authorities by a growth strategy crucially based on the expansion of household debt¹³. In sum, as has already been stressed at the beginning of this article, interest-rate determination can be properly described in terms of sets of objectives and constraints, on the action of the monetary authorities, which have different weights both among the various countries and for a particular country at different times.

This having been settled in one's mind, it must nevertheless be emphasized that interest-rate policy is *in any case* constrained also by the level of the real wage, irrespective of any awareness of

¹³ With respect to the US experience, considering the relevance gained by financial markets within the national system of retirement security, it can be affirmed that also overall social as well as political constraints are likely to have acted upon interest-rate policy. The massive return in the period since 1980 to individual-based retirement security, by dramatically exposing the living conditions of a significant section of the population (elderly households) to the behavior of stock market prices, most likely contributed to call for a policy of progressive lowering of interest rates (see on this Pivetti 2004, pp. 234-7).

the presence of such a constraint by this or that monetary authority and of any given interest-rate policy having actually been acted upon by it. The point is that to acknowledge that the real wage constitutes the residual variable in the relation between profits and wages is not to concede that the real wage may move to any level whatsoever. Thus, in the presence of independent factors which keep on pushing up the price-level/money-wage ratio in the economy, beyond certain limits, which will vary from one situation to another, a compensatory effect will have to be sought in the level of interest rates. This point is fully consistent with the classical and Marxian tradition, which correctly tends to regard as a self-evident fact that in any given social and historical conditions the real wage cannot be lower than the price which is necessary to pay in those conditions to carry on the productive process without too much discontent and conflict in the working place – which is lower, that is to say, than the cost that must be incurred to endow the process of production a minimum of workers' sanction to continue in an orderly manner. Within the framework of the monetary approach to distribution, this translates precisely into the fact that the level of the real wage, owing to its 'cost' or 'necessary' component (see Pivetti 1999), constitutes in any case an important constraint on the freedom of monetary policy to establish the level of interest rates.

6. Concluding remarks: activity levels, inflation and overall policy implications

The above view of money interest as a constrained policy variable – an 'autonomous monetary phenomenon', one can say, though just in the sense that interest-rate policy is not constrained by a normal profitability of capital, however pre-determined, as maintained by both the classical and the neo-classical tradition – can be applied to highlight the role of monetary policy in the determination of activity levels and inflation.

As to activity levels, the monetary approach to distribution places the whole question of the real effects of monetary phenomena and monetary policy under a light that is quite different from the Keynesian perspective. Indeed, it can be affirmed that the chief limits of Keynes's analysis of capitalism derive precisely from the role that he assigns to the rate of interest in the determination of activity levels. On the basis of his 'marginal efficiency of capital' schedule, all the shortcomings of the system would ultimately be due to the presence in it of obstacles, of an essentially monetary nature, that make it difficult to bring and keep the rate of interest on long-term loans at its full employment level – all the disasters of unemployment, in other words, would boil down to an insufficient downward flexibility of the rate of interest (see on this also Robinson 1942, p. 56)¹⁴.

On the basis instead of the notion of the rate of interest as a regulator of the ratio of prices to money wages, it will have to be acknowledged that the influence of the rate of interest on activity levels exerts itself chiefly through income distribution, and is therefore much more complex than that postulated by a neoclassical and Keynesian investment demand schedule. A-priori one can only affirm that a low-interest policy, through its impact on the distribution of income between profits and wages in the latter's favour, contributes to sustain the society's propensity to consume; moreover, that low interest rates are likely to sustain the propensity to consume also through their effects on the burden of household debt, the prices of fixed interest securities and most ordinary shares, and the value of houses. As already pointed out, actual experience up until the outbreak of the crisis clearly shows that both a lesser burden of debt and higher stock exchange and home prices affect positively the willingness of large sectors of the public to

¹⁴ Eventually, however, Keynes was led to believe that it might actually be possible to bring down the rate of profit to zero (except for the reward of enterprise) within a single generation or so, provided that, through a consistent and persistent cheap-money policy, the money rate of interest was made to fall as fast as the marginal efficiency of capital corresponding to full-employment rates of accumulation (cf. Keynes 1936, pp. 220-21 and 374-77). Keynes came thus to conceive that a situation might actually come about in which the entire net product of the economy would accrue to wage earners (apart from any allowance for the risk and the like), just as a 'natural' outcome of capital having ceased to be scarce.

purchase goods and services in general. It is then principally through consumption that a cheap-money policy is capable of exerting a positive influence on output and employment.

Much more problematic is the question of the influence of distribution on the incentive to invest. The possibility may certainly be admitted of situations in which the negative impact on the incentive to invest exerted by a fall in the normal profitability of the productive employment of capital is compensated, or more than compensated, by higher actual profit rates – that is, by higher rates of utilization of the capacity already installed, resulting from the rise in wages and consumption, or by investment decisions aimed at restoring normal profitability to its former state, by the introduction of new techniques. The point is, however, that there is no functional relationship that allows one to establish which will be, in general, the direction of the influence of persistent changes in interest rates on the incentive to invest. In other words, the impact of changes in income distribution on the incentive to invest may be either expansionary or recessionary, and it will have to be distinctly assessed in each case.

As to inflation, *ceteris paribus* a raising of interest rates by the central bank raises the price level, because it increases firms' mark-ups, lowering at the same time the real wage. A dearer money policy is thus by itself inflationary, through its direct impact on mark-ups¹⁵. But its overall net impact on the price level essentially depends on the effects that the policy-determined interest rates will eventually exert on aggregate demand and employment, through their impact on income distribution and the other channels by which changes in interest rates are bound to affect activity levels, including the leverage they exert on net exports through the exchange rate. Should the overall net impact of a dearer money policy on aggregate demand and employment be negative, then the *higher* price/wage ratio brought about by it might eventually be accompanied

¹⁵ Empirical work on firms' pricing behavior has given robust evidence of the fact that interest rates are regarded as a cost, with the corollary that they look to establish a price rise in response to increased interest rates. In the words of an old chairman of the US Joint Economic Committee, 'raising interest rates to fight inflation is like throwing gasoline on fire' (Wright Patman, quoted in Seelig 1974, p. 1049; see also Patman 1957, p. 134).

by *lower* inflation if the repercussions of a weakening wage earners' bargaining power on the dynamic of money wages were sufficiently robust.

It can therefore be said that higher interest rates may succeed in checking inflation if the higher ratio of prices to money wages they bring about, through their direct impact on mark-ups, is more than counterbalanced by: a) the lowering of prices of imported inputs, expressed in domestic currency, through the exchange rate channel; b) a reduction or slower rise of money wages as a result of the likely negative impact on employment of the contractionary effects on consumption spending and net exports caused by higher interest rates. Finally, to the extent that a dear-money policy is made effective by means of lasting programmes of credit restrictions, a check on the rise in prices might come about through the negative impact of the restrictions (in the availability of funds, in relation to the demand for them) on activity levels and hence, again, on the level of employment and of money wages¹⁶.

In sum, what one gets is a complex interpretation of the behavior of the general level of money prices, within which there are just a couple of causal links one can confidently rely upon as a basis for reasoning. It may be said that, differently from mainstream interpretations of inflation, with their emphasis on the degree of central bank independence and the credibility of its commitment to price stability, there is hardly anything mechanical in the interpretation of inflation that can be reached on the basis of the view of money interest and its role here expounded. As a matter of fact, an important implication of the theoretical vision defended in this article concerns precisely the status of the central bank: if interest-rate decisions, owing to their significance for the behavior of the real economy, are a crucial component of *general* economic policy, then endowing the central bank with a politically independent power of decision on interest rates will

¹⁶ This overall picture appears to be supported by empirical evidence, which seems to show that when inflation-targeting policies succeeded in lowering inflation, they also caused slower growth and higher unemployment (see Laidler and Robson 1993, Fortin 1996, Debelle 1997, Akerlof *et al.* 2002, Bodkin and Neder 2003, Ball 2005).

be an ill course of policy action, no less than any deliberate step towards losing national control of the level of the domestic rate of interest.

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