

## Fiscal policy in the monetary theory of production: an alternative to the “new consensus” approach

***Abstract:** This paper provides an alternative view to the new consensus approach, from the standpoint of the monetary theory of production. It is shown that output growth is demand driven, so that fiscal policies, as well as direct state intervention above all in the labor market, are effective for increasing output and employment. This also applies to the current dynamics, particularly to the effects of the economic policy of the European Union, where, as will be shown, respect for the Maastricht parameters has contributed to determine poor macroeconomic performance.*

***Key words:** fiscal policy, monetary theory of production, new consensus.*

The main policy prescription of the new consensus model (NCM) consists in maintaining that price stability can be achieved through monetary policy, via changes in the rate of interest, the “nominal anchor” (see, for example, Clarida et al., 1999; Goodfriend and King, 1997; McCallum, 2001; Meyer, 2001; Walsh, 2002). In particular, it is stressed that once the inflation target is fixed, interest rates must be increased (reduced) if the rate of inflation is higher (lower) than its target. In addition, the NCM is based on the conviction that a natural level of output is a long-term matter and is supply driven, and that the level of employment is established within the labor market (e.g., Arestis, 2009).

Several theoretical and empirical matters are critically raised against the NCM by nonmainstream economics, in particular by Post Keynesian

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scholars (see, e.g., Arestis, 2009; Arestis and Sawyer, 2004; Fontana and Palacio-Vera, 2007). First, restrictive monetary policies do not necessarily reduce demand if agents have positive expectations. At the same time, restrictive monetary policies could negatively reduce output in the long run, too, because they force economies to decrease capital accumulation (Arestis and Sawyer, 2004; see also White, 2006). In this sense, Post Keynesians maintain that output is demand driven both in the short and in the long run. Furthermore, there is empirical evidence that confirms that monetary policies may not have particular effects on price stability (see Arestis and Sawyer, 2004; Galí and Gertler, 2007) because inflation is a phenomenon that emerges when the degree of concentration of firms or production costs rise. The consequence is that the causal link between money and inflation is reversed (see Arestis and Sawyer, 2003).

This paper provides an alternative view to the new consensus, from the standpoint of the monetary theory of production (MTP). It is shown that output growth is demand driven, so that fiscal policies, as well as direct state intervention above all in the labor market, are effective for increasing output and employment. This also applies to the current dynamics, particularly to the effects of the economic policy of the European Union, where, as will be shown, respect for the Maastricht parameters has contributed to determine poor macroeconomic performance. More generally, the arguments presented in this paper suggest direct state intervention via fiscal policy, as well as market regulation (particularly in the labor market), particularly in the current circumstances, where a worldwide recession is a serious risk.

In particular, it will be stressed that (1) insofar as expansive fiscal policies, by increasing aggregate demand, improve firms' expectations, the higher the state expenditure, the higher private investments and, hence, employment, result; and (2) due to the operation of the "high wages effect," direct state intervention promoting high levels of wages produces an increase in labor productivity and, thus, of output. These theoretical positions lead to a critique of the institutional framework of the European Monetary Union (EMU), by emphasizing that respect for the Maastricht parameters produces stagnation processes.

### **The monetary theory of production**

The MTP describes the economics process as "a circular sequence of monetary flows" (Realfonzo, 2006, p. 105). The MTP derives from a methodological approach based on a "continuist" reading of Keynes's major works, in particular the *Treatise on Money* and the *General Theory*

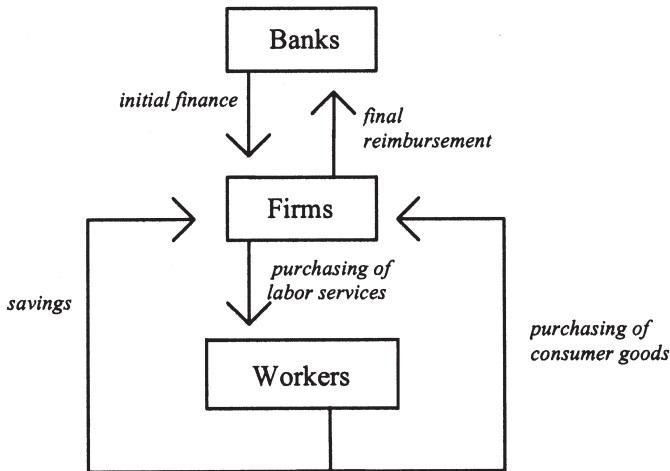
(see, e.g., Fontana, 2003, and Seccareccia, 2004, and more recently, Forges Davanzati and Realfonzo, 2008).<sup>1</sup>

The MTP general schema involves three macro-agents—banks, firms, and workers. The banking system creates money ex nihilo (in accordance with the idea that loans make deposits), firms buy inputs and produce commodities, and workers supply labor power. The circular process of monetary economy (see Figure 1) starts with bargaining in the money market between banks and firms. Banks supply firms with initial finance; firms need money in order to buy labor power and to start production. Firms use bank financing to purchase labor power, paying workers the previously negotiated money wages. After the production process has taken place, firms fix the price level, so that real wages are known ex post. If workers' propensity to consume is less than one, firms can recuperate the unspent money by selling securities in the financial market. However, the financial market can begin operation only after banks have produced money. It could be shown that the assumption that firms fix prices according to the markup rule leads to the same results as in the case, approached by some circuitists, that firms autonomously decide the division of the social product between consumption goods and investment goods. This is because investment goods are conceived as the share of social product that the firms take for their own sake. In this sense, a high level of production of investment goods is equivalent to a high rate of profit. The MTP emphasizes that income distribution is primarily set by firms' decisions, which reflect on the value of the markup. This means that within the MTP approach, income distribution among banks, firms, and workers depends on the relative market and social power of the agents.<sup>2</sup> Note that according to this theory, the distribution of power is structurally unbalanced because banks and firms control monetary variables (see Bellofiore et al., 2000; Rossi, 2001). The monetary circuit closes with the repayment of the initial finance to banks—that is, the “destruction” of the money originally created.

Different convergence points link MTP scholars: (1) money is a pure symbol (a bank liability), and money supply is endogenous and demand driven; (2) the unitary money wage is assumed to be exogenous, depending on the relative bargaining power of firms and workers; (3) the

<sup>1</sup> MTP scholars read the *Treatise on Money* as the theory of reproduction of capitalistic economy in equilibrium, where money is employed as a means of payment; while they regard the *General Theory* as the explanation of economic crises, generated by lack of aggregated demand, and where money reversed its role in the store of value.

<sup>2</sup> Following Kalecki (1971), in the MTP approach, workers spend what they earn, whereas capitalists earn what they spend.

**Figure 1** The monetary circuit

level of employment depends on firms' decisions about how much and what to produce, and these in turn depend on firms' expectations about aggregate demand and profits (a capitalist economy does not assure full employment); (4) the principle of the sovereignty of the consumer is not in operation; (5) income distribution is not based on the marginalist distributive rules, but on power relationships; and (6) state intervention, mainly through fiscal policy, is required in order to increase aggregate demand and employment, both in the short and in the long run (see Deleplace and Nell, 1996; Fontana and Realfonzo, 2005; Graziani, 1990, 2003; Parguez, 1975; Poulon, 1982; Realfonzo, 1998, 2006). It is worth noting that in this schema, *the interest rate is a "tax on profits."* Moreover, inflation is not a monetary phenomenon, it is not caused by an excess of money supply, but mainly depends on distributive conflicts.<sup>3</sup>

When the central bank is explicitly taken into consideration in these models, the following considerations hold. Some circuitist scholars show that the central bank acts as a "regulator of distributive conflict" between social classes (see Brancaccio, 2008). In order to allow the equilibrium of the balance of payment, the central bank can implement a restric-

<sup>3</sup> In the event it is caused by a "high level" of the markup, fiscal policy is likely to affect the price level via taxation. By increasing taxation on profits and redistributing these resources for increasing public expenditure, the consequent increase of aggregate demand determines an increase of employment.

Note also that variations of the interest rate may not affect inflation when positive expectations prevail.

tive monetary policy. This produces a reduction in the degree of capital utilization, thus generating (or increasing) unemployment and reducing wages, so that the consequent decrease in consumption reduces imports. In Rochon and Rossi, the central bank is a guarantor of the functioning of the payment system, and monetary policy is managed to “[neutralize] any pressures on interest rates arising from deficit of surplus banks, or from their needs for settlement balances” (2007, p. 552). Forges Davanzati and Realfonzo (2009) argue monetary policy is a means of redistributing income in favor of the nonproductive class, because interest to be paid by firms to banks is a source of income of the *rentiers* (i.e., the “leisure class” in a Veblenian sense).<sup>4</sup>

### The effects of fiscal policies in the MTP approach

The MTP approach does not exclude the possibility of demand inflation, and that this can be the result of government intervention. The traditional wisdom of the MTP—as referred to by Wicksell in *Interest and Prices* (1962, ch. 9, sec. B)—by assuming full employment equilibrium, supports the view that if banks reduce the cost of credit, this generates an increase in the demand for initial finance on the part of firms, an increase in the money wage bill, and inflationary pressures that cannot be endogenously stopped. In a similar vein, by assuming full employment, an exogenous increase in firms’ expectations would produce a cumulative process of price increases. Similar effects would be generated by expansionary fiscal policies. It is recognized, in this theoretical context, that a restrictive monetary policy—via an increase in the interest rate—would be effective for the purpose of reducing the inflation rate. However, these effects—being generated in a context of full employment—can be considered scarcely significant: in the theoretical framework of the MTP, there are no endogenous mechanisms that guarantee full employment. Accordingly, the variation in the interest rate for the sake of stabilizing the price level is confined to a purely hypothetical case.

By relaxing the unrealistic assumption of full employment, an expansionary fiscal policy becomes the main policy instrument in order to control the level of activity of the economy both in the short and in the long run. According to the circuitist scholars, and following the *General Theory*, the increase in public expenditure generates multiplier effects.

<sup>4</sup> A similar argument was proposed by Lunghini and Bianchi (2003), who stress that in the theoretical framework of the MTP, the banking system plays the same role that the landlords played in Ricardian economics.

Circuitists stress that this process involves historical time.<sup>5</sup> In particular, an initial increase in public expenditure—in the current period—can generate no effects on production and employment, but can only generate extra profits to the benefit of firms.<sup>6</sup> Due to the improvement in a firm's expectations, this leads to an increase in investments and output. Therefore, the income multiplier process develops along a series of subsequent circuits, on the condition that—due to the rejection of the rational expectation assumption—firms are not able to foresee the path of aggregate demand accurately.

In the short term, some recent contributions within the MTP show that fiscal policy can positively affect employment and output. Forges Davanzati and Realfonzo (2000), in particular, argue that public intervention does not produce inflation. Inflationary pressures mainly emerge when the expected real wages on the part of workers are higher than the current real wages, depending on firms' planes of production. In this context, workers' expectations are not satisfied, and they may react by demanding wage increases. Figure 2 describes the functioning of the labor market from this theoretical perspective, by posing the relation between the level of employment ( $N$ ) and the real wage ( $w/p$ ).<sup>7</sup>

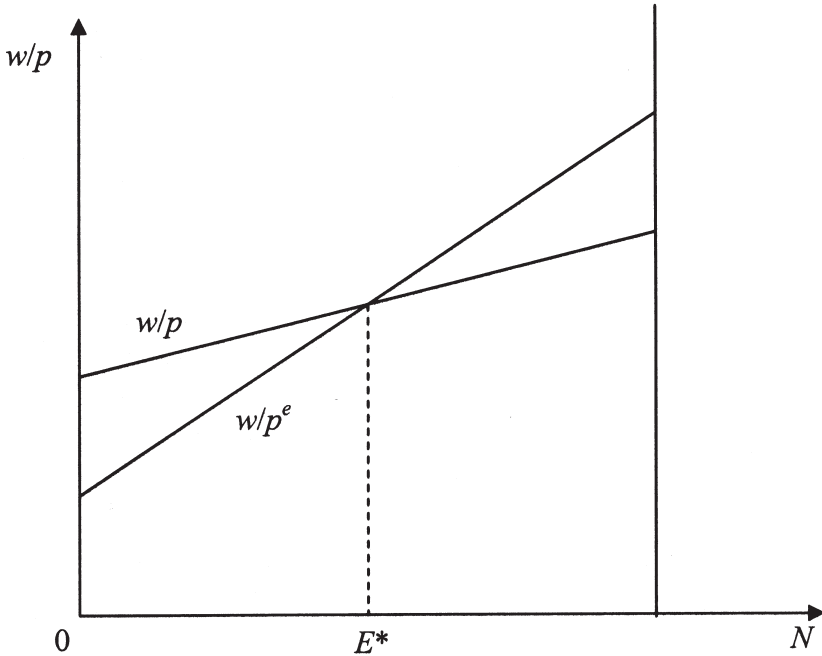
The line  $w/p^e$  indicates the expected real wage, which is assumed to be positively dependent on the level of employment. The line  $w/p$  indicates the current real wages, which depends on firms' decisions for a given markup. For the sake of our argument, it is relevant to stress that (1) there exists a level of employment ( $E^*$ ) that brings agreement between workers' expectations and firms' decisions, and this value can be reached only by chance, and this value can equal a full employment equilibrium ( $N_s$ ) only by chance;<sup>8</sup> (2) in the event  $w/p^e > w/p$ , workers will find their

<sup>5</sup> The relevance of historical time in the theoretical framework of the monetary circuit has been largely explored, because the monetary circuit involves a sequential process (see Lavoie, 1987; Nell, 2002; Schmitt, 1984; Seccareccia, 2003).

<sup>6</sup> Note that, because in the basic schema of the MTP, "initial finance" equals firms' money revenues (by assuming unitary propensity to consume), a problem of the realization of money surplus arises. This is what is named the "paradox of profits." This is a paradox only if one believes that the description of the functioning of a monetary economy cannot be reduced to the case where the monetary circuit does not close with payment in money. Different solutions have been put forward (see Chapman and Keen, 2006; Forges Davanzati and Pacella, 2008a, 2008b; Forges Davanzati and Realfonzo, 2009; Graziani, 2003; Messori and Zazzaro, 2005; Parguez, 2004).

<sup>7</sup> This figure is derived from the model developed by Forges Davanzati and Realfonzo (2000).

<sup>8</sup> Messori and Zazzaro point out that within the theoretical framework of the MTP, the notion of "systemic order" should be preferred to the traditional microeconomic notion of equilibrium and, importantly, that unlike the Hayekian order, "a monetary production economy is inherently unstable" (2007, p. 402).

**Figure 2** Employment, “monetary equilibrium,” and fiscal policy

expectations unfulfilled, and insofar as they can react, they will demand higher real wages, thus generating inflationary pushes. Here output and employment level depend on aggregate demand. When employment is higher than  $E^*$ , a process of (potentially unlimited) cumulative growth of wages and prices can occur, on the condition that the banking system is accommodating.<sup>9</sup>

In this model, and starting from a situation of unemployment equilibrium, expansionary fiscal policies can produce the following outcomes. First, government can directly increase employment, thus generating an increase in workers' bargaining power and a consequent increase of the expected real wages. If, as stated below, firms, via the improvement of their expectations, increase production, current real wages grow, too. Second, government can supply workers a higher quantity of goods. As shown below, this strategy is profitable for the sake of guaranteeing a more equal income distribution in the case of firms not spontaneously increasing the production of consumption goods. Moreover, due to the

<sup>9</sup> Here the MTP framework has many convergence points with the horizontalist vision of Basil Moore (1988).

“high wages effect,” this is also likely to generate an increase in productivity and thus of output.

Circuitists state that inflation can be better controlled by public intervention aimed at a reduction of firms’ monopoly power, thus reducing the markup.<sup>10</sup> In Graziani’s (2003) model, the effects of fiscal policy are dependent on the way public expenditure is financed. In particular, two cases are taken into consideration. First, if government expenditure is financed via taxation, this can increase aggregate demand due to the fact that an increase of taxation can induce workers to reduce current savings to the advantage of firms, so that “the presence of taxes increases profits” (*ibid.*, p. 109). Second, Graziani maintains that fiscal policy may generate inflation when it is financed by issuing government bonds, but this is not due to the direct increase of money supply. This occurs because “the increase in the stock of government bonds in existence brings about an increase in the value of [the amount of securities owned by workers] and in the level of money prices (*ibid.*, p. 107). As a result,

[w]hile real gross profits are unchanged even in the presence of government expenditure and inflation, real net profits are increased, since inflation decreases the financial burden of firms. In fact, when the government pays subsidies by means of deficit spending, the firms get higher receipts from selling their products. . . . In this case, government expenditure redistributes income in favour of profits and against the banking sector. (*ibid.*, p. 107)

With regard to public intervention and fiscal policy, three main issues are to be considered: (1) *The “crowding in” effect*. Parguez (2007, p. 8) argued that expansionary fiscal policy can be regarded as an “anchor” of profit expectations. He stressed that expansive fiscal policy allows employment to increase thanks to the additional flow of money that the

<sup>10</sup> More generally, circuitists maintain that income distribution is largely dependent on international capital movements. Brancaccio, in particular, argued “that the behaviour of the central bank is . . . designed to keep the flows of capital under control by ensuring that the internal interest rates are in line with those prevailing in other countries” (2008, p. 13). In such a situation, there will be no drain of capital, so that decisions of the central bank on the level of interest rates affect domestic income distribution via the variation of domestic investments. Hence, the outcome of internal distributive conflict depends on the capacity of domestic political powers to control capital flows in the international arena. A mass of evidence shows that international capital mobility has reduced the labor share in all of the Organization for Economic Cooperation and Development (OECD) countries (see Crotty et al., 1995).

It is clear that all public intervention aimed at reducing workers’ bargaining moves  $w/p^e$  down by increasing employment above its equilibrium point. But at the same time, the lower the countercurrent power of workers, the higher the countercurrent power of firms and banks.



state produces. In short, the higher the deficit spending, the higher the employment in the public sector, and because firms' expectations of profits rise, the higher the additional employment in the private sector.<sup>11</sup>

The analysis above can be simply summarized as follows. Let us consider that firms and the state are the only agents that can have access to bank credit.<sup>12</sup> Let us also assume that firms' profit expectations depend on aggregate demand and, for this reason, in turn, on expansive fiscal policy and that the unitary money wage is a given and that the level of employment is fixed by firms on the basis of the expected demand. We can write the total amount of demand for bank financing  $M_T^D$  as the sum of money demanded by firms  $M_F^D$  plus money demanded by the state  $M_S^D$ :

$$M_T^D = M_F^D + M_S^D. \quad (1)$$

Because profit expectations depend on the amount of public expenditure, money demanded by firms is a function of money demanded by the state. For simplicity, we can write:

$$M_F^D = \alpha M_S^D, \quad (2)$$

where  $\alpha$  is an index of firms' expectations on the level of aggregate demand. Substituting Equation (2) into (1), we have

$$M_T^D = (1 + \alpha)M_S^D. \quad (3)$$

With Equation (3) being used to pay wages, and assuming that the wages paid in the public sector are equal to those paid in the private one, we have

$$w(N_F + N_S) = (1 + \alpha)wN_S \Rightarrow N_F = \alpha N_S. \quad (4)$$

So the total number of workers is

<sup>11</sup> Moreover, in the basic schema of the MTP, the primary effect of public expenditure in an open economy is to generate an increase of profits lower than that available in a closed economy. This is due to the fact that the consequent increase of aggregate demand generates an increase in imports, at the expense of domestic profits. However, this effect is counterbalanced by the increase in capital mobility resulting from a free-trade context. The "hit-and-run" argument shown above is at the basis of this conclusion. If firms can easily move from one economy to another, they do not find it convenient to internalize the possible future costs of their present "predatory" strategies—that is, reduction of wages and employment—primarily in the form of social conflict.

<sup>12</sup> Of course, this is a restrictive assumption, because in the last decade, consumer credit increased in all industrialized countries.

$$N_T = (1 + \alpha)N_S. \quad (5)$$

In dynamic terms, Equation (5) becomes

$$g_N = T_S(1 + \Delta\alpha) - 1, \quad (6)$$

where  $T_S = N_{S,t}/N_{S,t-1}$  is the rate of variation of employment in the public sector. Equations (5) and (6) allow us to conclude that expansive fiscal policies addressed to increase employment in the public sector contribute to increased employment in all sectors. Moreover, fiscal policies are the more effective the higher the value of  $\alpha$ —that is, the more firms are optimistic—and the higher the amount of public expenditure. Note, expansionary fiscal policy—insofar as it increases employment via a monetary “crowding-in effect”—by increasing workers’ bargaining power, also generates a higher level of (money) wages. If a high wages effect is in operation, the increase in real wages determines an increase in labor productivity, so that—if labor productivity increases more (or at the same pace) than the unitary wage—expansionary fiscal policies do not produce inflationary pushes.

(2) *The “high wages effect.”* According to the MTP scholars, high real wages are associated with high labor productivity. Evidence shows that wages and productivity are often correlated. The European Central Bank reports that, in the euro zone, the rate of variation of negotiated wages declined from 2.66 in 1996 to 2.16 in 2007 and that, in the same period, labor productivity fell from 1.26 to 0.5. On the contrary, labor market deregulation, insofar as it increases the degree of uncertainty, reduces the propensity to consume, and this leads to a fall of aggregate demand and to a decline of employment (see Forges Davanzati and Realfonzo, 2000; 2004).<sup>13</sup> This analysis stresses that labor market deregulation is a counterproductive strategy when attempting to increase the rate of

<sup>13</sup> Forges Davanzati and Realfonzo (2000; 2008) also show that the level of employment depends on firms’ decisions on the level of output and that it is affected by social conflict. Because social conflict negatively affects labor productivity and is in operation in the future circuits, the more firms are interested in future profits, the higher the level of employment results. In contrast, in the case of “hit-and-run” firms—only interested in current profits—the future reduction of profits is internalized, thus increasing employment in the current period. This analysis establishes that the concept of a natural rate of unemployment is nonsensical, because unemployment is not a natural phenomenon, spontaneously generated by the market mechanisms in competitive labor markets, but ultimately depends on banks’ and firms’ decisions on the level of activity in a capitalist system, which, in turn, is profoundly affected by their time horizon and hence by international capital mobility. Accordingly, wage rigidity cannot be a cause of unemployment.

employment. In this context, public expenditure, insofar as it increases employment, due to the consequent increase in workers' bargaining power, can produce increases in wages, which stimulate firms to innovate (see Forges Davanzati and Pacella, 2008b).

When this "high wages effect" is taken into consideration, the following mechanisms are in operation: the higher the public expenditure, the higher employment and money wages. This, due to the operation of the "high wages effect" (i.e., an exogenous increase in wages encourages capitalists to innovate) generates an increase in labor productivity and employment associated with capital accumulation when a fixed technical coefficient prevails. At the same time, by assuming that the economy is made up of two types of firms (big and small firms) and that the latter operate under the constraint of credit rationing, the increase in wages generates the bankruptcies of the smaller firms. This leads to a greater industrial concentration ratio and, therefore, to possible inflationary pressures.<sup>14</sup> The general result is that expansionary fiscal policies are effective for the purpose of increasing employment as long as the banking system is accommodating. This result is consistent with the view of the nature of money supply in the MTP approach. Because, as shown above, money creation is above all a question of *power*, not only are banks' decisions at the first step of the monetary circuit, but their decisions can generate low levels of output, particularly in the event they reduce money supply.<sup>15</sup>

It is relevant to stress that because wage increases are not the spontaneous outcome of firms' decisions, the high wages effect should rest on an external intervention. Circuitists tend to prefer direct state intervention in the supply of public goods, more than an increase in money wages, and/or higher unemployment benefits, and/or via pensions. This policy

<sup>14</sup> MTP scholars devoted particular attention to the effects of the concentration of firms as the spontaneous outcome of the dynamics of capitalist systems. In particular, it is stressed that the increase in the industrial concentration ratio can generate inflation and reduce employment. In fact, the higher the industrial concentration rate, the higher the markup, and the lower the real wages, so that direct state intervention (both of regulation of markets as well as by means of fiscal policy) is suggested in order to reduce inflation. At the same time industrial concentration generates feedback effects in the money market, due to the consequent increase of firms' bargaining power over banks. This leads to the increase in concentration among banks, and the consequent increase in the interest rate further increases the price level (see Forges Davanzati and Realfonzo, 2005). For this reason, MTP scholars oppose industrial concentrations sustaining public intervention in favor of permanent competitive conditions.

<sup>15</sup> On the methodological plane, this tends to refute the mainstream paradigm of scarcity, because the power assigned to money creation is strictly linked to the possibility, on the part of the banking system, to render artificially scarce resources (i.e., money), which are nonscarce, on purely technical grounds.

prescription derives from the basic assumption that firms decide the level and the composition of output. As shown above, high money wages are not necessarily associated with high real wages. This occurs because capitalist economies do not have endogenous mechanisms so as to bring agreement between what workers expect to receive and what firms decide to produce. As a result, workers' expectations about the level and the quality of consumer goods can be directly fulfilled via state supply of public goods. Of course, this prescription rests on the conviction that the neoclassical view according to which public firms are, by their very nature, less efficient than private firms is highly questionable. At the same time, it is certain that because public firms do not aim at obtaining profits, their prices can be *lower* than private firms and equal to the average costs of production. A great deal of evidence supports the view that privatizations have contributed to increase the inflation rate, thus reducing real wages.<sup>16</sup> Moreover, the increase in real wages and employment, via expansionary fiscal policies, can also stop the vicious circle of indebtedness on the part of workers. As shown by Forges Davanzati and Pacella (2008a), workers' indebtedness—ultimately caused by low wages and by labor market deregulation (Pacella, 2008)—can produce inflationary pressures. As a result, indebtedness is both a cause and an effect of an unequal income distribution.

(3) *Fiscal policy and the criticisms of the Maastricht parameters.* From the analysis above, it follows that circuitists maintain that public intervention is necessary for stabilizing the macroeconomic system, and that, in particular, expansive fiscal policies are necessary for the sake of increasing employment and output. They also suggest direct public intervention to regulate markets (labor market above all) and to reduce the market power of both banks and firms in order to allow a more equal income distribution, thus favoring the growth of aggregate demand. In this context, monetary policy can only be accommodating in order to ensure the maximum efficacy of the fiscal policy. One of the main outcomes of this analysis pertains to the critiques of the institutional framework of the EMU and of the Maastricht parameters. In particular, it is stressed that the “conservative” behavior of the European Central Bank as well as policies of deregulation are at the root of the current recession in Europe. Moreover, it has been stressed that these policies contribute to increase the divergence—above all with regard to wage differentials—between the “core” and the “peripheral” areas of the European Union. Critiques also pertain to the values of the Maastricht parameters, on the basis of the seminal paper of Pasinetti (1998), where he demonstrates

<sup>16</sup> As far as regards Italy, see Stirati (2005).

that the deficit/gross domestic product (GDP) Maastricht parameters have no basis in scientific fact, and that economists are only able to individuate—on the basis of given institutional constraints—areas (not given value) of sustainability of public debt. Moreover, Graziani stresses that “the ratio debt/income is not a sign of the risk of debt, since—when acquiring bonds—individuals take the composition of their portfolio into consideration, not the ratio between public debt and other forms of wealth” (1998, p. 175, our translation). Among other things, critics have stressed that sanctions on the “excess” of public debt/GDP have never been applied, and in the cases of negative “rating,” no significant effect has occurred. Furthermore, on the ethical level, the intergenerational equity argument can be contrasted in view of the fact that it is impossible to foresee *when, how, and in favor of which social groups* taxation will be put in operation for reducing public debt of today.

Note that the policies based on the Maastricht parameters, as well as the European Central Bank (ECB) monetary restrictive policy, have determined the following results: from 2006 to 2007 employment was reduced by about 0.2 percent and, starting from 2000, GDP declined in all the principal European countries. On the basis of the MTP, these results are not surprising and derive from two mechanisms shown above. First, the reduction of public expenditure, insofar as it negatively affects private investments, reduces the rate of growth. More generally, the imposition of restrictive fiscal policy has generated a lack of aggregate demand, with the consequent decrease of output, employment, and wages. Second, the dramatic decline of real wages is not independent of the fall in productivity. As shown above, due to the “high wages effect,” wage reductions tend to reduce firms’ propensity to innovate, thus reducing the rate of growth of productivity and, hence, of output.

Furthermore, Eurostat certifies that the annual rate of inflation in the euro area was 3.2 percent in October 2008 (2 percent being the target rate of inflation), and that the inflation rate rose parallel to the continuous increase of the interest rates by the ECB, at least in the past two years. In that period, this was puzzling for the new consensus view, due to the fact that the increase in the interest rate should *reduce* the inflation rate. Circuitists can explain this phenomenon by considering that (1) investments are exogenous, depending on firms’ “animal spirits,” and (2) firms fix prices under the markup rule, and the money interest rate—being a cost of production—enters the price equation.<sup>17</sup> Under these conditions,

<sup>17</sup> In a similar vein, Graziani points out that “[a] high level of interest rates could . . . induce firms to protect their own profits by setting a higher price level. High interest rates might therefore be a source of inflation” (2003, p. 119).

the increase in the interest rate does not reduce investments and, hence, does not produce deflation, but stimulates firms to increase prices, due to the additional financial burden they face. As a result, *restrictive monetary policies may produce inflationary pressures*. This conclusion reinforces the view that fiscal policies are more effective for the sake of increasing output and employment, and that they do not produce inflationary pressures, except in the hypothetical case of an economy working in a situation of full employment equilibrium.

### Concluding remarks

This paper dealt with the fiscal policy within the theoretical framework of the MTP. It was stressed that within this theoretical framework, firms have access to bank credit (and money supply is endogenous), and the level of employment and wages depend on their autonomous decisions about the scale and composition of output. Expansionary fiscal policies can generate high levels of employment due to the following mechanisms. First, policies of deficit spending can improve firms' expectations, thus generating increases in private investments and employment. Second, due to the high wages effect, the increase of wages, resulting from a direct intervention on the part of government in the labor market, is likely to increase labor productivity and, thus, output. As a result, expansionary fiscal policies can guarantee better macroeconomic performance than monetary policy. The paper also presented some critiques of the Maas-tricht parameters deriving from the MTP theoretical framework.

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