Financial instability and functional finance : a Lerner-Minsky perspective

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Abstract:

The 2007/08 financial crisis results in two major problems that issue difficult challenges for the economic theory and policy. The first challenge is the rise of unemployment notwithstanding growing imbalances of budget deficits. The second is the monetary and financial instability threatening the permanence of economic development. In response to these two challenges a reappraisal of the functional finance approach of Abba Lerner and of the financial instability hypothesis of Hyman Minsky seems to be a relevant way of reconsidering the pitfalls of the working of capitalist economies. Consistency of public interventions in face of growing unemployment and atonic economic activity rests on the new principles that should guide financial system's reform in order to deal with the malfunctioning of liberalized markets.

Keywords: 2007/08 crisis, functional finance, financial instability, regulation

JEL Classification Codes: B52 - E63 - G01 - G18

Introduction

In the aftermath of the 2007/08 crisis, Geoffrey Hodgson (2009) asks if anyone does read Keynes and remarks that in spite of a renewal of interest in newspapers and magazines for some out-of-mainstream economists of the "past" like Keynes and Minsky, it is difficult to find remarkable shifts of opinion among economists and economics courses: "I tried without success to find the work of Keynes or Minsky on any reading list available on the web of any macroeconomics or compulsory economic theory course in any of the top universities in the world" (p. 1208). In the same vein, Colander (2002, p. 1) also remarks that "In reading the economics journals and talking with newly-minted PhDs, it is as if Keynesian economics never existed".

This evolution of the profession toward what Hodgson (2009) calls "sickonomics" can also be observed in macroeconomic theory and policy which have both failed to prevent the current worldwide crisis from occurring and destroying several millions of jobs, unpleasantly surprising most economists and politicians while the general dominant belief was the efficiency of free market mechanisms as a scientific universal truth.

The implementation of this belief all around the world through the retreat of activist economic policies from the institutional structure of economies resulted in a change of the accumulation regime by the 1980s ("financialised" or "speculative debt-leveraging economy") that gave rise to institutional and structural fragilities as finance dominated activities are substituted to traditional banking and submit the entire economy to the caprices of myopic markets behavior. At the same time, monetarist and New Classical policies (money-neutralization policies – central bank independence, anti-public-deficits policies-, etc.) let the public debt to be mainly financed on financial markets. The *dysfunctional finance* replaced therefore the "old fashion" financial structures. The speculation becoming stronger and crises more frequent, public interventions are implemented and generated high social costs (socialization of the costs of crisis). In such a malfunctioning financialised economy, the public debt increased beyond what is considered as an acceptable level. Governments, highly implied in large deficits and debts, are then prevented from using functional finance as their expenditures are clasped in the rescue of market failures.

However, this crisis may give us a new opportunity to reconsider our "sickbeliefs" about the functioning of capitalist economies and to design new ways of building policies in order to deal with real world problems. The 2007/08 crisis has actually directed the attention of theoretical and political debate to some questions related to the relevance and efficiency of corrective public intervention in markets. From 2009 fiscal expansions have been implemented in several countries to sustain the economic activity in economies strongly hurt by the effects of the crisis. After the subsequent increase of budget deficits which allowed financial markets to put pressures on the financing of public debts, several European countries have had to reduce their stimulus measures to regain market confidence without having strengthened fragile financial structures. The search for new macroeconomic principles in order to guarantee a sustainable and stable accumulation regime seems to be lost in transition from the financial crisis to the (yet unreached) recovery. The issue is an existential one since the economic policies to be implemented will certainly shape the (in)ability of post-crisis economies to enhance economic growth and international stability. This problem has been hotly debated. However, studies on this nagging issue usually consider public spending and fiscal policies independently of financial regulation policies. Then they do not present an integrated analysis though there are strong links between these two aspects of public intervention since the former cannot be implemented without an appropriate redesign of financial structures.

In order to fill this gap, this essay suggests a theoretical reappraisal about some simple principles to understand the functioning of a capitalist economy following two unorthodox economists, Abba Lerner and Hyman Minsky. Therefore it aims to determine whether the functional finance approach of Lerner and the financial instability hypothesis of Minsky can be related to each other to shed light on the links between the public finance and financial regulation in the process of macroeconomic stabilization.

Lerner (1951) states that when things go wrong, reactions of individuals are perverse and instead of correcting an excess or an insufficiency in total spending, individuals rather tend to aggravate the situation. In this case what is needed is social action. The functional finance asserts that the public expenditures can be used to enhance economic growth and employment if they are accompanied by an appropriate fiscal policy and a taxation scheme. The fiscal policy – through public spending and taxing but also through monetary and financial policy - is viewed as a powerful device to balance the economic activity at its full employment level.

The financial instability hypothesis maintains that the financial instability is a natural outcome of the financial liberalism. Indeed, Minsky (1982) remarks that for the viability of economic relations, we have to imagine a “good financial society” in which the tendency by business and banks to engage in speculative finance is constrained. Minsky argues that the conception and the management of money and financial markets should be designed according to some collective rules and regulations in the aim of preventing costly and growth-reducing financial crises and insuring stable conditions of financing productive activities in order to increase the level of employment.

From this perspective, the paper is organized as follows. The first section states the relevance of an analysis of the current crisis using functional finance and financial instability hypotheses and puts the emphasis on theoretical and policy-related stakes of such a synthesis. The second section gives an account of the principles of functional finance in economic recovery as a consistent policy guide. The third section provides a brief analysis of the current crisis throughout the financial instability hypothesis and shows its implications for sound functional finance principles. It maintains that functional finance should be accompanied by consistent regulatory framework in order to direct monetary and financial markets' behavior toward more stable financing of long-term productive activities. The last section concludes arguing that in order to prevent 2007/08 crisis-like catastrophes, dominant economic beliefs and policies must be discarded in favor of voluntarist and active monetary/financial and fiscal policies.

I. Considering the functional finance and the financial instability together: What is at stakes in the ongoing turmoil?

To date, most of modern economies are in turmoil. The financial crisis of 2007/08 - which has revealed the pitfalls of dominant (pro-liberal) monetary and financial policies - has been turned into more general economic crisis. This crisis has necessitated huge public funds to sustain the banking system against its endogenous failures and the productive system against a sharp decrease of the demand and related supply failures in major capitalist economies. While the implemented supportive policies did not succeed to counterbalance negative effects of the crisis, governments' deficits have reached exceptionally high levels and called for a return to conventional fiscal policies in order to diminish budget deficits and then public expenditures. These orthodox policies, especially defended by liberal end neoliberal economists and politicians, mark unfortunately the incredible (and even more unsustainable) comeback of the political and economic conservatism that some critical economists have already identified as the main source of the ongoing crisis and some others have already fought against in the 1920-50 period like Keynes and Lerner (to quote but two). Facing this comeback, several unorthodox economists from different schools of thought (Marxists, Ricardians, Keynesians, Post-Keynesians, Institutionalists, etc.) try to develop new or renewed ideas to supply relevant alternative economic theories and policies and to combat against conservatism which has fuelled the roots of recent crisis[1].

To contribute to this work in progress, it seems to be worthy to develop the specific analyses offered by Lerner and by Minsky in two domains of economic theory, usually studied separately from each other. Various arguments can be noticed to emphasis that the theoretical foundations of the Lernerian functional finance approach and the Minskian financial instability hypothesis are developed out of common theoretical principles. Lerner and Minsky both have rejected the major neoclassical propositions: market full-employment equilibrium exists and this equilibrium is sought out and reached by market mechanisms. Both put to the fore the irrelevance of the hypothesis of market equilibrium regarding the very nature of

[1] See for example contributions to the volume edited by Nell and Forstater (2003) and Wray, to quote but a few.

capitalist economy and argue that faced with difficulties individuals' reactions on decentralized markets result in perverse behavior and systemic imbalances.

Assuming that capitalist economy's market mechanisms fail to result in full-employment equilibrium, the functional finance approach of Lerner proposes specific public intervention principles which should guide public spending and its financing in the aim of attaining a desired level of employment (or to prevent unemployment). For Lerner, the functioning of the decentralized market economy is endogenously chaotic because of the lack of collective planning. This characteristic of the capitalist economy makes that markets are not able to deal with instability issues and need external corrective interventions. Then Lerner argues that when unemployment increases and real or financial economic difficulties go up most individuals will succumb to the temptation to postpone expenditures. The expectation of depression will make people reduce their spending (private consumption and investment) in order to benefit from the expected lower prices in the future or to maintain their reserves for the difficult times ahead:

"What all this means is that reactions of individuals are perverse. Instead of correcting an excess or an insufficiency in total spending, they rather tend to aggravate the situation. (…) Whenever the individual reactions in any situation are perverse, what is needed is social action" (1951, p. 125).

This fundamental role of public intervention in view of shrinking demand through public spending, emphasized by Lerner, is also put forward by contemporaneous authors like De Grauwe (2009) who indicates different deflationary trends that may result in collective panic and prolonged recessive tendencies. Those tendencies stem from coordination failures among private actors revealing the limits of market mechanisms (Mastromatteo, 2011).

Parallel to these assumptions, the financial instability hypothesis of Minsky (1980) maintains that free-market-mechanisms-based financial systems are not able to result in a stable evolution thus the major macroeconomic concerns as the unemployment and inflation call for permanent public intervention and regulation. It is then argued that in a world where the internal dynamics imply that coherence will break down “semblance of coherence can be achieved by constraints and intervention” (Minsky, 1985). While there is no room for the financial systemic instability in the neoclassical approach the decentralized nature of economic relations makes that the economy evolves through fundamental uncertainty:

“In a decentralized private-enterprise economy with private commercial banks, we cannot expect the money supply to increase sufficiently to offset the effects of a sharp increase in uncertainty upon inside asset prices. Conversely, we cannot expect the money supply to fall sufficiently to offset the effects of a sharp decrease in uncertainty. We should expect the privative, profit-maximizing, risk-averting commercial banks to behave perversely, in that with a decrease in uncertainty they are willing and eager to increase the money supply and with an increase in uncertainty they act to contract the money supply” (Minsky, 1982, p. 132).

It then becomes obvious that there are two oppositions between the functional finance/financial instability hypothesis and the dominant economic theory and policy which assumes that the economy will gravitate to some long-run equilibrium that is independent of government policy. The first opposition is as regards the sound finance assertion, founded on the New Classical economics’ Ricardian equivalence hypothesis: government spending and fiscal policies have no effect on the long-run market equilibrium. Then the only relevant budget/fiscal policy is the budget equilibrium principle. The second opposition is against the quantity theory of money, founded on the New Classical economics' super-neutrality of money theorem: the monetary policy has no effect on the long-run market equilibrium. Then the relevant monetary policy is the rule-based price level stabilizing policy which can be implemented by a government-independent central bank (Ülgen, 2009). The free market mechanisms are assumed to lead economy on a spontaneous equilibrium path without necessitating any public intervention:

"New Classical economics took rational expectations and used it in conjunction with the Walrasian unique equilibrium model to arrive at the proposition that, assuming competitive markets, if macro policy were irrelevant in the long run it was also irrelevant in the short run" (Colander, 2002, p. 6).

Alas, notwithstanding this dominant belief, the elimination of economic insecurity (i.e. the lack of job-creating growth) that Lerner (1943, p. 38) announced as the most important task facing society in the 1940s still remains the major concern in modern and open societies in the "new free-market millennium". In this Lerner and Minsky have developed similar analyses. Minsky (2008a, p. 323) states that:

"Poverty in the midst of plenty and joyless affluence are but symptoms of a profound disorder. As we have pointed out, persistent financial and economic instability is normal in our capitalist economy. The commitment to growth through private investment - combined with government transfer payments and exploding defense spending - amplifies financial instability and chronic inflation. Indeed, our problems are in part the result of how we have chosen, inadvertently and in ignorance of the consequences, to run the economy. An alternative policy strategy is needed now. We have to go back to square one-1933-and build a structure of policy that is based upon a modem understanding of how our type of economy generates financial fragility, unemployment, and inflation."

The functional finance approach can point to a consistent direction in order to deal with this insecurity. As Colander (2002, p. 1) remarks[2]:

"While most policy makers now tell a Classical story, their practice still reflects many of ideas of functional finance; the expectation of government intervention is still giving stability to the economy and allowing policy makers talk to be stronger than their actions".

However, there is a clear paradox between the utilitarian implementation of anti-crisis policies and the theoretical grounds of economic policy models. Minsky indeed emphasizes that debt financed public spending and easy money policies to reverse the downward movement and to improve speed recovery conditions during a depression were strongly advocated by various economists before the *General Theory* of Keynes. Some of these economists were Henry Simon and Jacob Viner, both from the University of Chicago but their acceptation of the necessity of anti-crisis public interventions were not founded on their theoretical conception of the functioning of capitalist economy:

"Before Herbert Hoover was president of the United States he was Secretary of Commerce. As such he sponsored commissions and reports which advocated a budget that was balanced over the business cycle rather than annually, i.e., under his auspices contra-cyclical fiscal policies were advocated. However, these economists and politicians did not have and hold a theory of the behavior of capitalist economies which gave credence to their policies: their policy advice was divorced from their theory" (1982, p. 97).

[2] Colander also states that: "The new work on multiple equilibria macro, solution mechanisms and complex dynamics is beginning to touch on ideas that can once again make functional finance relevant" (Ibid). See also Colander and Matthews, 2004, p. 7.

This paradox makes that authorities run some so-called unconventional policies in times of crisis without modifying their beliefs or their theoretical references, letting the financial/monetary breaches subsist on markets. However it is worth noting that active employment policies depend also on consistent monetary policy as they involve changes in public spending, interest rate, public deficit funding and financing conditions of private investments. There is a clear and non ambiguous relation between the functional finance and money. Lerner (1943) actually argues that functional finance “is applicable to any society in which money is used as an important element in the economic mechanism”. Contrary to the neoclassical theory in which money is always outside the system that determines outputs and relative prices such that change in the money supply is an exogenous shock variable that will not affect relative prices, the capitalist market economy is fundamentally a monetary economy. Minsky (1982, p. 17) advocates that:

“In our economy money is created as bankers acquire assets and is destroyed as debtors to banks fulfill their obligations. Our economy is a capitalist economy with long-lived and expensive capital assets and a complex, sophisticated financial structure. (…) To understand the behavior of our economy it is necessary to integrate financial relations into an explanation of employment, income, and prices.”

Therefore it seems that the consistency of functional-finance-based policies cannot be reached without a change in monetary and financial environment of capitalist economies. The functional finance is closely linked to a stable financial environment at least through the financing needs of public debt. When monetary policy is left to conservative (anti-inflationary) rules to be implemented by the so-called independent central banks and to financial markets that fuel speculative profit-seeking positions, there is no possibility for employment policies to be structured according to consistent financing schemes of spending needs of the economy. There cannot be any relevant macro policy for economic recovery without harmonized fiscal and monetary policies. Financial markets must be framed in order to prevent the accumulation of short-sighted financial positions by banks as well as by public spending units. Thus it appears that functional finance can only be designed and implemented in a monetary and financial environment which must be founded on social development targets and directed toward the needs of financing of job-creating private and public investments. In the other case, the public spending and the fiscal structure will remain prisoner of markets vicissitudes as it is often the case, especially in times of crisis.

These assertions can be supported by the results of the work offered by Lerner and by Minsky though in two – unfortunately – separate lines of analysis: the public budget management to increase the employment level and the reform of monetary and financial structure of capitalist economy.

II. Functional finance: principles of an anti-austerity economic policy framework

The functional finance is a set of principles which should guide public spending and its financing in the aim of attaining a desired level of employment (or to prevent unemployment) when market mechanisms reveal to be unable to give economy a sufficient level of activity. Functional finance is usually interpreted as an opposition to the sound finance defined as the budget equilibrium rule for public interventions. So that is a narrow definition of the functional finance since Lerner argues that the central idea of the functional finance is that:

“ (…) government fiscal policy, its spending and taxing, its borrowing and repayment of loans, its issue of new money and its withdrawal of money, shall all be undertaken with an eye only to the results of these actions on the economy and not to any established traditional doctrine about what is sound or unsound. (…) The principle of judging fiscal measures by the way they work or function in the economy we may call *Functional Finance*” (1943, p. 39).

In this, the economic policy – which is “the responsibility of the government – since nobody else can undertake that responsibility” (ibid.) - must consist in keeping the equality between the aggregate (domestic) demand and the aggregate (domestic) supply. What is the way to guarantee this equality? As the market economy is not a self-adjusting economy, Lerner (1943, p. 39) maintains that the government must use economic policies to increase (decrease) total spending by spending more (less) itself or by reducing (raising) taxes so that the taxpayers have more (less) money left to spend. Therefore, one can obtain the first law of the FF which is the regulation of economic activity throughout government spending and taxation. According to this, when the government has more in taxes than its spending, it can use the difference to repay some of the national debt. When the government spends more than it collects in taxes, “it would have to provide the difference by borrowing or printing money” (1943, p. 40).

In this scheme, the main target for the economic policy should be to keep the total rate of spending relevant regarding a desired level of both employment and inflation. Taxing or public spending are not considered as budget balancing tools but macro-adjustment policies. Corollary to this, the choice between the “monetary financing” of public spending and the rising of taxes depends on whether it would be desirable that the tax payers should have less money to spend (in order to prevent inflation) or it would be desirable that the public should have less money and more government bonds. In that, the second law of functional finance comes into the picture: the public borrowing can be used to regulate the rate of interest, the investment and the level of inflation[3]. Lerner argues that according to the first law, the monetary expansion does not increase the money supply of private units. The monetary expansion is used to modify the level of interest and of government bonds to balance the domestic supply (the level of production) and the domestic demand (the level of consumption). Therefore, the functional finance does not admit any sound finance doctrine because the balancing of the public budget over any period has no economic meaning (Lerner, 1951, pp.130-33). The keystone of the macro-equilibrium is the total spending and the government spending (or revenues) constitutes the main adjustment tool for this. Such a policy program can be summarized according to three prescriptions (Lerner, 1943, p. 41):

- The adjustment of total spending (private and public consumption and investment) to eliminate unemployment (and also inflation) by means of government spending changes (increase of public spending when total spending is too low and increase of taxes when it is too high regarding the equality level of domestic aggregate supply and aggregate demand);
- The adjustment of public holdings of money and government bonds by government borrowing or debt repayment to modify the interest rate according to the desirable level of investment (one of the main components of the total spending);

[3] Actually, if the rate of interest is reduced too low, that may induce too much investment and thus bringing about inflation. In the opposite case the government should lend money if it is desirable to increase the money or to reduce the quantity of government bonds in the hands of the public (Lerner, 1943, p. 41).

- The adjustment of monetary policy (monetary expansion or money destruction) to achieve previous prescriptions.

To date (in 2011-12), sound finance and public budget equilibrium are announced as religious truths to be implemented, especially by the "pump-primers" who "suggested that it might be necessary for the government to use its fiscal powers to stimulate demand but that *repeated* stimuli were not necessary" (Bell, 1999) since pump-priming asserts that a temporary new expenditure would have lasting effects to raise the level of economic activity letting free markets find again their vigor.

Lerner (1943, p. 42) argues therefore that as the functional finance would maintain the level of total demand equal to the current output, it would be, *ceteris paribus*, a long-run balancing of the budget though there is no place for the principle of sound finance in the functional finance. Thus the public debt does not matter: "As long as the public is willing to keep on lending to the government there is no difficulty, no matter how many zeros are added to the national debt" (Lerner, 1943, p. 42). In the opposite case, the public must either hoard the money or spend it. If the public hoards, the government print money to meet its obligations such that the public holds money instead of government bonds. When the public spends, the total spending increasing, it will not be necessary for the government to spend more (and then to borrow more). If the rate of spending of economic agents becomes too great regarding the level of aggregate supply, the government can increase taxes to prevent inflation.

The functional finance story is founded on the fact that: "(…) the national debt, when it is not owed to other nations, is not a burden on the nation in the same way as an individual's debt to other individuals is a burden on the individual (…)" (Lerner, 1943, p. 43). Here, one should remark the crucial difference between the dominant sound finance view and the sound finance principles since Lerner's proposition is founded on the latter which is diametrically opposed to the former. Colander (2002, p. 2) actually remarks that in proposing the rules of functional finance Lerner's purpose is:

"to shift thinking about government finance from principle of sound finance that make sense for individuals – such as a balanced budget – to sound finance principles (now designed as functional finance) that make sense for the aggregate economy in which government spending and taxing decisions affect levels of economic activity. These two differed because the secondary effects of spending decisions and savings decisions –what Lerner and I called macro externalities – had to be taken into account in the aggregate economy".

The public spending compensates for insufficient private spending to keep (macro) economy stronger. That is not an erroneous-public-policy based outcome but a stabilization process under the government activist policies. The public spending is thought as a contribution to provide full employment when the private spending is insufficient. The leading figure in economic stabilization when things go wrong is the public power. This power, founded on the sovereignty of the state - would it be a government budget department or a central bank regulating money creation mechanisms (Lerner, 1947) - has the duty to make economy work on a permanent path. Therefore the government becomes the employer of last resort and then a spender of last resort (Kaboub, 2007, p. 8). But, the functional finance as a stabilization device is not related to a predetermined natural rate of unemployment. This latter is related to the hypothesis of existence of a long-run market equilibrium while the functional finance rejects this hypothesis and states that the government has a crucial role to play in capitalist economy which is, by nature, an unstable economy. Lerner then recalls one of the main arguments of the opponents to the functional finance-based public policies: high taxes (to finance interest payments on public borrowing through bonds) would discourage risky private investment. This would make it necessary for the government to undertake still more deficit financing to keep up the level of income and employment. He then points to some major errors of such opposition to the functional finance. First, the net return on the risk of loss is unaffected by the income tax rate when cent per cent of the loss is deductible from taxable income, where relief from taxation occurs at the same rate as the tax on returns: “The effect of the income tax is to make the rich man act as a kind of agent working for society on commission” (Lerner, 1943, p. 45). Second, following deficit-spending multiplier, the public spending increases the real national income by several times the amount spent by the government. The burden on this spending is measured not by the amount of the interest payments but by the inconveniencies involved in the process of transferring the money from the taxpayers to the bondholders. Third, the fiscal policy is used in case of inflation pressures. Taxes will be levied only in the social interest to prevent excessive spending or excessive investment which would bring about inflation. If taxes imposed do not result in sufficient proceeds, further needs will be met by borrowing or printing money:

“This means that the absolute size of the national debt does not matter at all, and that, however large the interest payments that have to be made, these do not constitute any burden upon society as a whole” (Lerner, 1943, p. 47).

And last but not least, the functional finance does not imply continuous increasing of the national debt. The full employment would make private investment much more attractive if investors, once, “have got over their suspicions of the new procedure” (Ibid. p. 48).

The greater investment will then diminish the need for more deficit spending. The national debt increases, and with it the sum of private wealth. There will be no fiscal crowding out effect as there will be an increasing yield from taxes on higher incomes and inheritances without a reduction of public spending:

"The greater the national debt the greater is the quantity of private wealth. The reason for this is simply that for every dollar of debt owed by the government there is a private creditor who owns the government obligations (…)" (Ibid. p. 49).

The greater the private fortunes the less should be the incentive to reduce private spending when taxes are increasing. Probably, when the public spending increases, the private wealth and then the private spending would also increase and this would allow government to reduce public spending and the deficit since the total spending reaches the level of full employment. In this schema, the unemployment comes from insufficient demand as in the Keynesian effective demand model. Lerner maintains actually that the level of employment that the employer would create depends on how much of the product he decides to have produced and this depends on how much of it he can sell at an adequate price (1951, p. 47). And how much can be sold depends on how much money the consumers are spending in buying it. Lerner defines then the full employment as the situation in which "those who want to work at the prevailing rates of pay are able to find work without undue difficulty" (1951, p. 17). Thus, the level of employment depends on:

"(…) the total rate at which money is being spent in buying all kinds of currently produced goods and services. A full employment policy must therefore consist of measures for getting and keeping the proper rate of total money spending" (1951, p. 48).

It should also be remarked that the functional finance approach is a dynamic and monetary one since the level of employment is assumed to depend on the flow of acts of payment involved in the spending and not on the stock of money in existence: “What matters is only the rate at which dollars are being spent (…)” (1951, p. 51). And as the spending consists of consumption and investment by business, by individuals and by government, the increase of the rate of spending when unemployment holds can be allowed through the increase of government spending to foster the private spending. As regards the positive effects of public spending on private activities, developed also by Forstater (1999) in an insightful analysis, Mastromatteo (2011, p. 8) argues that:

“one should not overlook the fact that public works may in fact increase the productivity of the private sector (…) through reduction of the costs for firms, because there are numerous social services and services of collective interest that are not adequately provided by the private sector and which have beneficial effects for the economy and for society”.

From a similar point of view, Seccareccia (2010) also maintains that to deal with the employment-reducing consequences of the current crisis:

“what the G20 leaders and their economic advisors fail to understand is an elementary accounting fact that what is a spending for one sector (say, the government sector) is necessarily a receipt or income for another sector (say, the private sector) and that what is a net spending (or a budgetary deficit) of one sector must inevitably be a positive net saving (or a financial surplus) of another sector. Hence it follows that, regardless of how they are financed, expenditures generate income, and private sector saving is merely the pecuniary accountancy of public sector deficits”[4].

Once the functional finance principle is admitted as a consistent way of accompanying private economic activities on markets, its implementation should be coupled with consistent macro environment which calls for “big” government able to frame the behavior of financial markets to prevent the accumulation of short-sighted speculative positions, especially on public debt.

II. Functional finance requires consistent and stable financial structure

The analysis of Minsky on the crisis of the early 1970s seems to be relevant also for the current crisis as the decline in investment and consumer debt-financed spending that follows after an aborted debt deflation leads to a decline in income and this evolution implies public intervention to avoid depressive pressures on markets:

“In today’s economy, positive fiscal actions and the built-in stabilizers lead to massive government deficits as income falls. Such deficits sustain income, sustain or increase corporate profits, and feed secure and negotiable financial instruments into portfolios hungry for safety and liquidity” (Minsky, 1982, p. 68).

However, it is worth noting that policies which work in one financial regime may not be effective in another one. For example, the fine-tuning of the after WWII period, within a “robust finance” (Minsky, 1982), cannot work in the liberalized

[4] In 2002 Colander (2002, p. 4) judiciously remarked that “At times, however, the policy rhetoric of modern macroeconomics is written down as a framework for policy, as in the structure of the new European Monetary Union where member countries are required to have budget deficits no larger than 3 per cent regardless of the state of the economy. Such a requirement precludes the use of functional finance rules and thus could present serious problems for the European Union. My suspicion is that ways around these rules will be found because, while the rhetoric of functional finance is not used, the lessons of functional finance – you don’t try to reduce the deficit when the economy is heading into a recession – are still understood by most policy makers (even though they are not understood by many young theoretical macroeconomists)”.

financial markets regime that has ruled in the past decades since business and banks have more possibility and tendency to engage in speculative finance. So, functional finance principles are closely related to monetary and financial policies that public authorities would develop. In a capitalist economy where money and monetary institutions play a first order role, government interventions like public spending and fiscal policies have strong effects on interest rates, private agents' portfolio arbitrages and behavior of financial markets. Once markets are liberalized and financial needs provided through market transactions government spending falls under the power of speculative financial operations. The financing of public debt then becomes prisoner of the willingness of banks and other financial institutions to fund them in the aim of making higher profits. From this perspective, the financial structure of the economy is one of the major variables that determine the extent to which functional finance can effectively be implemented.

Comparing the American economy of the after WWII period and the 1929-33 crisis, Minsky argues that the main reason of the relative stability of the second half of the twentieth century was the big government which has made it impossible for profits to collapse as in 1929-33:

"The combined effects of big government as a demander of goods and services, as a generator – through its deficits – of business profits and as a provider to financial markets of high-grad default-free liabilities when there is a reversion from private debt means that big government is a three way stabilizer in our economy (…)" (1982, p. 56).

Consistent employment policies call for consistent macro environment that should be framed by government according to a set of desired targets and relevant means without increasing the likelihood of a deep depression. Therefore Minsky (2008a, p. 343) states that:

"The policy problem is to develop a strategy for full employment that does not lead to instability, inflation, and unemployment. The main instrument of such a policy is the creation of an infinitely elastic demand for labor at a floor or minimum wage that does not depend upon long- and short-run profit expectations of business. Since only government can divorce the offering of employment from the profitability of hiring workers, the infinitely elastic demand for labor must be created by government. A government employment policy strategy should be designed to yield outputs that advance well-being, even though the outputs may not be readily marketable. Because the employment programs are to be permanent, operating at a base level during good times and expanding during recession, the tasks to be performed will require continuous review and development."

Minsky maintains that no economy can long survive as a free society unless it is seen to promote social justice:

"The promotion of social justice by economic means requires that the inequalities of income correspond to some consensus as to the differential worth of the contributions made to the cooperative effort that produces income. (…) Taxes and a distribution of the benefits of government intervention that are deemed to be fair or equitable are necessary for any economy (…)" (2008b, p. 163).

In this aim, the government spending must be considered as an unemployment policy in time of turmoil that combats the Orwellian *haunting terror of unemployment*:

"A government can run a deficit during a recession without suffering a deterioration of its creditworthiness if there is a tax and spending regime in place that would yield a favorable cash flow (a surplus) under reasonable and attainable circumstances" (Minsky, 2008a, p. 336).

But if reasonably full employment is the dominant goal, the ways of reaching it are not always consistent:

"The combination of investment that leads to no, or a minimal, net increment to useful capital, perennial war preparations, and consumption fads has succeeded in maintaining employment. But such a resolution of the problem of unemployment and depression does not lead a corresponding increase in felt wellbeing. It rather seems to put all—the affluent, the poor, and those in between—on a fruitless inflationary treadmill, accompanied by what is taken to be deterioration in the biological and social environment. Furthermore, as high investment and high profits depend upon and induce speculation with respect to liability structures, the expansions become increasingly difficult to control (…)" (Minsky, 2008b, p. 164).

Obviously, one also must remark that in an open economy, there are some market pressures on the public debt:

"There is nothing special about government debt, and a flight from government debt can occur. For a foreign-held debt such a flight will lead to a deterioration of the currency on the exchanges; for a domestic debt the flight can lead to inflation and a need to pay ever higher interest rates to have the debt held" (Minsky, 2008a, p. 336).

From this perspective, a given functional finance policy needs a debt monetization framework which must be accompanied by high degree of coordination between fiscal and monetary authorities (Palacio-Vera, 2011) and by consistent financial market structure that could enable government to be financed without speculative attacks. Therefore as Minsky (2008a, p. 338) states, this implies a big government which can take measures and implement monetary policies to counterbalance depressive pressures on markets:

"Policy to control the aggregate performance of the economy needs a handle by which it can affect profits. One such handle is monetary policy, but as has been argued, monetary policy affects income and employment by first affecting asset values and the liquidity and solvency of firms, households, and financial institutions. Monetary policy to constrain undue expansion and inflation operates by way of disrupting financing markets and asset values. Monetary policy to induce expansion operates by interest rates and the availability of credit, which do not yield increased investment if current and anticipated profits are low. A Big Government where the budget moves to surplus with high income levels and inflation and to deficit with low investment and incomes is the primary effective stabilizer of the economy".

As in Lerner's functional finance laws, Minsky (2008a: 339) maintains that a major portion of the profit stabilizing deficits and the inflation-controlling surpluses has to come from variations in the tax take. But the implementation of such a policy needs a robust financial structure of which the key element is:

"the quality of the best available short-term asset - short-term government debt. An in-place tax structure that yields a surplus when the economy either does well on the income and employment front or poorly on the inflation front is a necessary condition for maintaining the quality of government debt" (Minsky, 2008a: 340).

Moreover, since the capitalist economy is a debt-financing (monetary) economy which has a continuous tendency to generate serious financial crises the intervention of big government in order to stabilize and to control by regulation the financial system becomes a relevant orientation:

“The history of capitalism is punctuated by deep depressions that are associated with financial panics and crashes in which financial relations are ruptured and institutions destroyed. Each big depression reformed the institutional structure, often through legislation. The history of money, banking, and financial legislation can be interpreted as a search for a structure that would eliminate instability. (…) In a Big Government capitalist economy with an activist central bank, debt deflations and deep depressions can be contained. Furthermore, central bank administrative actions and legislation can attempt to control and guide the evolution of the financial structure in order to constrain cyclical instability” (Minsky, 2008a, p. 349).

As in our economy the financial structure mainly rests on the financing of investment and positions in the stock of privately owned capital assets and as business corporations control capital assets and order investment output, the financial powers and practices of corporations are the starting points for policies to manage or contain instability. The monetary and financial authorities need to guide the evolution of financial institutions by favoring stability enhancing and discouraging instability augmenting institutions and practices. Therefore appropriate reforms to regulate debt-financing of investment and of positions in the stock of capital, especially for large-scale organizations, are needed (2008b, p.165). However, financial reform can be effective only as part of a general system of reform that should aim at reaching a sustainable level of employment in the economy:

“As long as the main proximate objective of policy is to encourage investment, institutions, and ways of doing business that facilitate investment financing and capital-asset ownership will be fostered. But inappropriate financing of investment and capital-asset ownership are the major destabilizing influences in a capitalist economy. Thus, the substitution of employment for investment as the proximate objective of economic policy is a precondition for financial reforms that aim at decreasing instability. The policy problem is to design a system of financial institutions that dampens instability. While banks are the central financial institutions of a capitalist economy, banking is a business encased in myth: it is an economic mystery wrapped in an enigma. Bankers are fiduciaries who advise and act in the interest of clients, even as their own income depends upon the services they sell to these same clients. Lines were drawn among commercial, investment, and savings banks aimed at moderating the conflict between the fiduciary and private-profit aspects of banking. Recent experience shows that the institutional lines cannot be sustained when there are large profit opportunities from breaching the lines" (Minsky, 2008a, p. 350).

Obviously, these assertions point to a radical change in our way of conceiving the functioning of the monetary capitalist economy which is an uncertain economy engaging in an unknown future. Engagements are founded on debt-financing relations through individuals' expectations about what the evolution could be ahead. Financial contracts evolve through an exchange of certainty for uncertainty: "The current holder of money gives up a certain command over current income for an uncertain future stream of money" (Minsky, 1982, p. 20). Then a debt is validated when maturing commitments to pay are fulfilled and expectations are sustained that future remaining commitments will be fulfilled[5]. The financial instability hypothesis is related to the impact of debt on system behavior and incorporates the manner in which debt is validated (Minsky, 1992). The private debts, source of the monetary

[5] By extension "a debt structure, either in total or for various subdivisions of the economy, is validated when on the whole maturing commitments to pay are fulfilled and when expectations are that future receipts by debtors will enable payment commitments that extend over time to be fulfilled" (Minsky, 1982, p. 34).

creation in the economy are founded on private expectations as asserted by Lerner and Minsky. Therefore, profits are critical because they enable debtors to validate their debts and also because "anticipated profits are the lure that induces current and future investment. It is anticipated profits which enable business to issue debts to finance investment and positions in capital assets" (Minsky, 1982, pp. 34-35 and 65).

However, the financing of public deficits cannot rest on the same criterion (expected private profits), but on the social utility of public expenditures. Therefore, the market evaluation throughout the financing of public debt on markets has no meaning. Private-spending units and public spending units are not the same aim and cannot be guided according to same principles since the efficiency of public debt is not the economic efficiency (maximizing profit).

Concluding remarks

This essay develops the consequences of Lerner's and Minsky's ideas on fiscal and financial public interventions in the aim of sustaining economic growth and financial stability in time as the two components of a relevant employment-based macroeconomic policy. The analysis presented here points out two major conclusions: the financing of the public debt and public spending should not be left to the vicissitudes of markets, and a relevant regulatory framework must be implemented (macro-prudential regulatory mechanisms) to replace the dominant free-market-based financial systems. Consequently, the functioning of our financial systems and the regulatory mechanisms that should guide them must be designed according to the objective of stable and sustainable growth in order to keep markets from collapsing. As the free market mechanisms do not seem to be able to insure sustainable growth and development, nonconformist public spending policies in order to restore the full employment are required.

What we must do facing the current economic turmoil is first to change our theoretical way of apprehending the working of the capitalist economy. Second, we have to imagine "new" policies to deal with the real economy's problems in a more relevant manner than in the neoliberal policies. A synthesis of the main principles developed by Lerner about the public spending and related monetary policies and by Minsky about the reform of unstable liberalized financial markets seems to offer a fruitful and promising research agenda.

Bibliography

Bell, S. (1999) "Functional Finance: What, Why, and How?" *Working Paper* No. 287, University of Missouri at Kansas City, November.

Colander, D. and Matthews, P. H. (2004) "Integrating Sound Finance with Functional Finance", Middlebury College Economics Discussion Paper No. 04-13.

Colander, D. (2002) "Functional Finance, New Classical Economics and Great Great Grandsons", Middlebury College Economics Discussion Paper No. 02-34, July.

De Grauwe, P. (2009) "Keynes' Savings Paradox, Fisher's Debt Deflation and the Banking Crisis", Working Paper, University of Leuven.

Forstater, M. (1999) "Functional Finance and Full Employment: Lessons from Lerner for Today", *Journal of Economic Issues*, vol. XXXIII (2), June: 475-82.

Hodgson, G. H. (2009) "The great crash of 2008 and the reform of economics", *Cambridge Journal of Economics*, 33: 1205-21.

Kaboub, F. (2007) "Employment Guarantee Programs: A Survey of Theories and Policy Experiences", The Levy Economics Institute of Bard College Working Paper No. 498, May.

Lerner, A. P. (1943) "Functional Finance and the Federal Debt", *Social Research*, 10(1/4), February: 38-51.

Lerner, A. P. (1947) ‘‘Money as a Creature of the State", *American Economic Review*, Papers and Proceedings, 37(2): 312-17.

Lerner, A. P. (1951) *Economics of Employment*, New York: McGraw-Hill Book Company, Inc.

Mastromatteo, G. (2011) The Debate on the Crisis: Recent Reappraisals of the Concept of Functional Finance, Universita' Cattolica del Sacro Cuore, Quaderni dell'Istituto di Economia e Finanza, no. 105, November, Milano.

Minsky, H. P. (2008a) *Stabilizing an Unstable Economy*, McGraw Hill: New York, first published in 1986.

Minsky, H. P. (2008b) John Maynard Keynes, New York: McGraw Hill, first published in 1975.

Minsky, H. P. (1992) "The Financial Instability Hypothesis", The Jerome Levy Economics Institute of Bard College Working Paper No. 74, May.

Minsky, H. P. (1985) "Efficiencies, Institutions and the Contained Instability of Capitalist Economies", *Hyman P. Minsky Archive,* Paper 205, http://digitalcommons.bard.edu/hm_archive/205

Minsky, H. P. (1982) *Can "It" happen again?* M.E. Sharp, Inc.: Armonk, New York.

Minsky, H. P. (1980) "Capitalist Financial Processes and the Instability of Capitalism", *Journal of Economic Issues*, vol. XIV (2), June: 505-23.

Nell E.J. and Forstater M. (eds) (2003), *Reinventing Functional Finance Transformational Growth and Full Employment,* Cheltenham: Edward Elgar.

Palacio-Vera, A. (2011) “Quantitative Easing, Functional Finance, and the “Neutral” Interest Rate”, Levy Economics Institute of Bard College Working Paper No. 685, September.

Seccareccia, M. (2010) “No to Fiscal Austerity. The Perils of Deflation and the Case for Functional Finance”, *Economia e Politica – Rivista on line di critica della politica economica*, 19 Luglio 2010 at http://www.economiaepolitica.it/index.php/europa-e-mondo/no-to-fiscal-austerity-the-perils-of-deflation-and-the-case-for-functional-finance/

Ülgen, F. (2009) “The credibility of the central bank and the role of monetary authorities in a market economy”, *Economie appliquée*, LXII(4), pp. 73-98.

Wray, R. L. (2009) “An Alternative View of Finance, Saving, Deficits, and Liquidity”, Levy Economics Institute of Bard College Working Paper No. 580, October.