

## Hyman Minsky's monetary production economy

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### 1. An unpublished paper

In April 1986, an international conference on Michal Kalecki was held in Perugia. Hyman Minsky presented an invited contribution at the conference. Hyman intended to revise it subsequently, but the paper was never published. However, some photocopies were in circulation and Marcella Corsi, who had attended the 1986 conference, brought her copy to a roundtable held in Rome in September 2012 on “The financial crisis and its developments: Hyman Minsky’s teachings.”<sup>1</sup> The paper attracted attention, was subsequently read by some of the roundtable participants including Esther Minsky, and it was decided to publish it. For the permission to publish it here, thanks are due to Esther Minsky, Hyman’s wife, and to their daughter and son, Diana and Alan.

As explained in Carlo D’Ippoliti’s introductory footnote to Minsky’s text, the paper is a photocopy of the original typescript, annotated in pencil in Hyman’s hand; an unreadable four-line sentence has been omitted at the end of section 3 and except for the correction of typing errors, no change has been introduced. The copy is kept in our journal’s archives.

In the context of the present-day debate the paper is important for its contribution towards establishing a link between the financial and the real sides of the economy. This is not a surprise for those acquainted with Minsky’s theoretical contributions (see for instance Minsky, 1975 and the

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<sup>1</sup> The proceedings of this roundtable have been published as Fonzione Zaninoni (2012), “La crisi finanziaria e i suoi sviluppi: gli insegnamenti di Hyman Minsky”, *Quaderni della Fondazione A.J. Zaninoni*, Bergamo, and are available at <http://www.economia.civile.it/online/?p=130>.

papers collected in Minsky, 1982).<sup>2</sup> However, it is a useful reminder to those who, in the present-day debate, reduce Minsky's contribution to one solely related to a theory of financial fragility providing a financial-only explanation of the recent world crisis: in Minsky's theory as well as in recent events, financial fragility interacts with increasing inequalities in income distribution. (A parallel criticism may be levelled at those interpretations of the recent global crisis that focus on income distribution without taking into account the structural changes that have intervened in financial markets).

In the paper published below, Minsky (drawing on previous works of his, see for instance Minsky, 1982, pp. 34-57) links Kalecki's analysis of the real economy with his own original contributions on the financial side of the economy (which, of course, retain a strong Keynesian flavour), thus proceeding in the direction suggested above. What still remains outside the scope of Minsky's paper is an analysis of market forms (with, most importantly for classical economists and their modern Sraffian heirs, the role of the uniform rate of profits as a reference point under competitive conditions).<sup>3</sup>

Recourse to Kalecki, namely to an analysis based on social classes and income distribution, is common in post-Keynesian theory. Kalecki's analysis of the financial side of the economy, though, is rather scant, being substantially reduced to the so-called principle of increasing risk (which, as we shall see below in section 2, Minsky utilizes in his analysis). Thus, post-Keynesians have occasionally suggested the need for blending the analyses of Keynes and Kalecki together. Both are based

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<sup>2</sup> See also the Minsky Archive, preserved at the Levy Economics Institute of Bard College at Annandale-on-Hudson and partly available online at <http://www.bard.edu/library/archive/minsky>.

<sup>3</sup> By embodying some aspects of Kalecki's thought, such as the principle of increasing risk, Minsky implicitly assumes the dominance of oligopolistic market forms; his analysis is in fact compatible with Sylos Labini's theory of oligopoly (Sylos Labini, 1962). What Sylos Labini stresses, something the Kaleckian tradition occasionally ignores, is that oligopolistic competition implies an underlying rate of profit common to the whole economy, while sectoral profit rates add an oligopolistic element to it dependent on the levels of the barriers to entry, which can be seen as a sectoral multiplicative coefficient to the general profit rate. See Sylos Labini (1984, pp. 141-143) and for a survey of the issue Roncaglia (2010a).

on the principle of effective demand; however, while Keynes's analysis is stronger on the financial side but appears to ignore social classes and income distribution, Kalecki's analysis has complementary characteristics.

In the paper published below, Minsky stresses the usefulness of the analyses of both men as foundation stones for building his own approach. Specifically, Kalecki is praised for putting profits at the centre of his analysis: as Minsky (2013, pp. 95) says, "profits are the cash flow that enables business debtors to meet their commitments," and this allows for "the integration of financial structures into the determination of the basic behavior of the economy." Thus, the integration of Kalecki's price equation into Minsky's own analytical framework is the object of Minsky's 1986 presentation at the Kalecki conference, published below.

## **2. Minsky's contribution: the interpretation of Keynes**

In a brief overview of Hyman Minsky's contributions to economic theory we can focus attention on three elements: the role of uncertainty, the notion of financial fragility and the theory of crises, the identification of money manager capitalism as the most recent stage of development of market economies.

In his first important book, John Maynard Keynes (1975), Minsky offers an interpretation of Keynes's theory quite different from the then- (and now-) dominant one, the Hicks-Modigliani-Samuelson neoclassical synthesis, but also different from the interpretation of Keynes's own pupils at Cambridge (Richard Kahn, Joan Robinson). The essential difference lies in his treatment of uncertainty, which plays a central role in Minsky's interpretation. Thus, after an introductory chapter, Minsky devotes the first two chapters of his book to an illustration of the standard interpretation of Keynes and to "fundamental perspectives," namely the conceptual foundations of the *General Theory*: the "business cycle perspective," uncertainty, the active role of investment and its fluctuations leading to disequilibrium.

The notion of uncertainty was analyzed by Keynes in his *A Treatise on Probability* (1921). In this context we should recall that Keynes's university training was as a mathematician; his book was, and is, considered as a contribution to the logic of probability written by a scholar in the field, not as an academic detour by an amateur who really belonged to another field of research.<sup>4</sup> Minsky (1975, pp. 64 ff.) stresses this point, recalling (*id.* p. 67) that

“Uncertainty enters strongly into the determination of behavior at two points: in the portfolio decisions of households, firms, and financial institutions, and in views held by firms, by the owners of capital assets, and by the bankers to firms as to the prospective yields of capital assets.”

Thus, in the two subsequent chapters Minsky builds the two cornerstones – “capitalist finance and the pricing of capital assets” and “the theory of investment” (*id.*, pp. 69 ff. and 93 ff.) – not only of his interpretation of Keynes as offering “an investment theory of fluctuations in real demand and a financial theory of fluctuations in real investment” (*id.*, p. 57),<sup>5</sup> but also of his own reconstruction of economic theory. Capital assets are viewed as an entitlement to a “sequence of anticipated cash flows, i.e. cash receipts or cash payments;” it is stressed that such cash flows may be different in nature: for instance, they “may be dated, demand or contingent” (*id.*, p. 70). Discounted at an appropriate interest rate (the prevailing one, influenced if not fully determined by monetary policy) with, respectively, a plus (receipts) and a minus (payments) sign, these two series are added up and the result is the price of the capital asset. It is thus clear that such a price depends on the economic agent's evaluation of the series of payments and receipts, and of the interest rate (or more generally the liquidity conditions of the economy) over the lifespan of the asset under consideration.<sup>6</sup>

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<sup>4</sup> For an illustration of Keynes's approach to probability in comparison with other approaches (the classical, the frequentist and the subjectivist ones), cf. Roncaglia (2009).

<sup>5</sup> The same point is expressed by Minsky (1982, p. 95) with respect to his own theory: “the financial instability hypothesis leads to an investment theory of the business cycle and a financial theory of investment.”

<sup>6</sup> This analytical framework was developed in Minsky (1964): an important paper, not included in Minsky (1982).

This is a point on which Minsky differentiates himself from Keynes, whose exposition is “muddled [...] partly because he chose to suppress the price of capital assets in his statement of his liquidity-preference function” (Minsky, 1975, p. 69). It should be stressed here that discounting cash flows to obtain asset prices is not a straightforward operation, because of the differing nature of the cash flows (dated, demand or contingent) connected to different assets or liabilities. Minsky also criticizes Keynes's assumption of decreasing prospective yields of capital assets: “he may have confused the influence of different stocks of capital assets with the influence of different rates of production of capital assets” (Minsky, 1975, p. 99); the point is complex, being related to the theory of capital which was the subject of a fierce debate at the time Keynes was writing the *General Theory* as well as at the time Minsky was writing his book; its relevance here according to Minsky is that it led Keynes to place “an undue emphasis upon the interest rate” (*ibid.*), compared to his own theory based on asset prices. The prices of capital assets, together with the conditions for the financing of their acquisition, determine investment decisions. This brings us to other theoretical issues, such as the relationship between the amount of investment and the returns on newly acquired capital assets (hence the relationship with income distribution), and the connected relationship between the price level of output (which depends, inter alia, on income distribution) and the price level of capital assets.<sup>7</sup>

The evaluation of the stream of cash payments and receipts (including the evaluation of the interest rate) takes place under uncertainty. As Keynes shows, a relevant role in the formation of expectations is played by “conventions,” namely a sort of general frame of mind prevailing among agents within the economy.<sup>8</sup> Under tranquil

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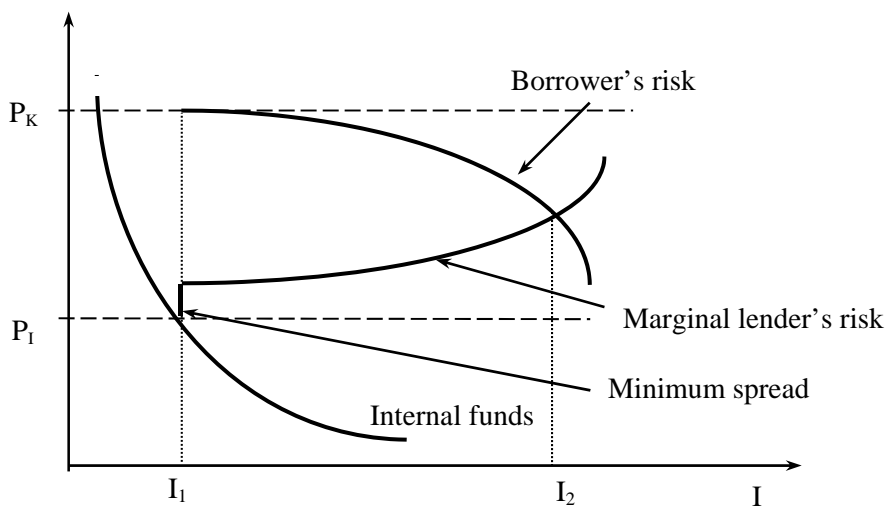
<sup>7</sup> Reference is made here to the conditions necessary for financing the acquisition of capital assets since this implies not only (levels and expectations of) interest rates but also expected liquidity conditions of the economy, hence the likely conditions for refinancing the position, if and when necessary. Prices of financial assets enter the scheme here, as expressing the financial state of the economy. The acquisition of financial assets may be seen as an alternative to the acquisition of real assets; in both cases, decisions are made on the basis of the expected flows of receipts and payments.

<sup>8</sup> See Minsky (1975, p. 128).

conditions, such conventions have a certain persistence; however, they change over time, and such changes may be abrupt especially when agents are confronted with some important and unforeseen event. Fluctuations in investment, hence in output and employment, stem from the fragility of the conventions on which investment decisions rely.

Minsky follows Kalecki in attributing importance to the way in which investments are financed. More precisely, internal financing is preferred to external financing. Since internal financing stems from (cumulated) retained profits, we find here the connection to income distribution. The point may be illustrated by means of a graphical representation (Figure 1),<sup>9</sup> which differentiates itself from the usual textbook representations of investment decisions by its explicit distinction between internal and external funds and by adoption of the Kaleckian principle of increasing risk, both on the part of the lenders and on the part of the borrowers.

Figure 1 – *Investment function*



<sup>9</sup> The graph is taken from Mario Tonveronachi's lecture notes. It is an adaptation of the one illustrated in Minsky (1982, p. 79).

Investment, the dependent variable, is on the abscissa.  $P_K$  is the demand price and  $P_I$  the supply price of investment output. The latter “states the minimum price at which particular outputs of investment goods would be produced given current money wages, the carrying (interest) costs of investment goods as they are produced, and the cost of purchased ‘inputs’.”<sup>10</sup> When  $P_K$  is greater than  $P_I$ , investments are positive and exceed the amount that can be internally financed. The ‘internal funds’ curve is a rectangular hyperbole, each point of which represents the amount of investment that can be financed internally at each supply price of investment, given the amount of internal finance available.<sup>11</sup> Thus  $I_1$  is the amount of investment that can be wholly financed internally at supply price  $P_I$ . For investment levels above  $P_I$ , external finance is required; this affects both the demand price for investment, due to (increasing) borrowers’ risk, and its supply price, due to (increasing) lenders’ risk<sup>12</sup> (there is a discontinuity in the augmented supply price curve at  $I_1$ , because of the minimum spread demanded by external finance providers in comparison to the firm’s own evaluation of the opportunity cost of internal finance). The total amount of investment,  $I_2$ , is given by the point of intersection of the augmented supply and demand curves;  $(I_2 - I_1)$  is the amount of investment financed with external funds.

As hinted at above, internal funds come from cumulated internal savings, which are related to past profits. Aggregate profits are derived from the saving-investment identity expanded to consider income distribution (the so-called Cambridge equation, with different saving propensities for capitalists,  $s_p$ , and workers,  $s_w$ ):

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<sup>10</sup> Minsky (1982, p. 80).

<sup>11</sup> This is equal to gross capital income (gross profits after taxes and interest paid on debts) less gross payment on debts and dividends). See Minsky (1982, p. 80).

<sup>12</sup> “Whereas lenders’ risk becomes, in part, an objective phenomenon, in the form of interest rates and contract provisions, borrowers’ risk is largely a subjective phenomenon which sets limits on the ratio of payment commitments to gross profits” (Minsky, 1982, p. 80).

$$P = \frac{I + G + BPS - s_w W}{s_p} \quad (1)$$

where  $P$  stands for profits,  $I$  for investments,  $G$  for public expenditure,  $BPS$  for balance of payment current account surplus and  $W$  for wages.

The result is an endogenous dynamics with cumulative changes of internal funds and a pro-cyclical evaluation of risk. A change in one direction tends to be cumulative. For example, a sustained positive rate of growth generates higher profits, higher internal funds, improved expectations and a less conservative evaluation of risk. All these changes lead to increased investments, hence increased profits, and so on.

Such Minskyan endogenous dynamics implies a continuous revision of expectations, which become more and more optimistic as the economy continues to grow. Risk assessments also become progressively more and more optimistic: speculative positions may be reinterpreted as covered positions. Thus financial fragility grows, both for financial and non-financial firms, families and the government.

In a world subject to continuous change, agents continuously adapt their decisions to the new environment and revise their asset and liability structure. However, there are limits to the extent of such revisions to the agents' positions. When agents have to decide whether to refinance or sell their positions, they are confronted with the evolving liquidity condition of the economy. What matters more in this regard, according to Minsky, than changes in interest rates is the overall liability structure of the economy and of different groups of agents within it, and its evolution over time. It is here that financial institutions enter the scene, with their capability to provide some flexibility to the economy through (and constrained by) their unbalanced liability structure based on short term debts and long term assets: the financing, and re-financing, of real capital asset positions is mainly provided by them.

This implies that there are two different kinds of risk which agents, in particular financial institutions, must take into account: a liquidity risk and a solvency risk. The first is connected to the unbalanced liability structure of most agents within the economy, such that occasionally agents must refinance their positions. Since liquidity conditions in the



economy may change (interest rates may increase, it may become more and more difficult to refinance long positions), agents may find it too costly or impossible to refinance their positions, and may therefore be compelled to liquidate them. This may happen even if there is no solvency problem, which is to say even if such positions still retain a positive price (in other terms, even if the expected flow of receipts more than compensates the expected flow of payments).

A liquidity crisis may easily transform into a solvency crisis, namely a situation in which the net worth of the agent's position becomes negative. The increase in interest rates may alter the present value of the flows of expected payments and receipts in such a way as to turn a positive asset price into a negative one; more importantly, the attempt to liquidate a position by selling some assets, when carried out by too many operators at the same time, may drive down asset prices so much as to bring the net worth of the agent's position into the negative area.

Whenever this happens to the expected value of an investment project, it is clear that such a project is not realized, while under different conditions it would have been implemented. Thus, a turn in the liquidity conditions of the economy brings forth a decrease in the amount of investments, hence – through the multiplier mechanism – a turnaround of the economy. Financial instability and the upswings and downswings of the real economy are strongly interconnected.<sup>13</sup>

### **3. Minsky's financial fragility hypothesis**

Crises, according to Minsky, are connatural to a capitalist economy. Moreover, while Keynes stressed that a tendency to under-consumption (or better, a tendency of the pace of technical progress to dominate the

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<sup>13</sup> Apart from the aspects considered here and in the following section, mainly concerning the most unstable element of aggregate demand, namely investments, let us recall at least the credit crunch which takes place whenever the climate of opinion of financial operators worsens and which affects investments but also, in the most extreme cases, current production levels, and the so-called real wealth effects by which the fall in the prices of assets negatively affects consumption decisions.

pace of growth of demand) may generate a tendency to remain below full employment, Minsky focused attention on the role of financial crises to push the economy below the path of full employment growth and into a cyclical pattern of crises.<sup>14</sup> In Minsky's (1975, p. 129) own words, "the missing step in the standard Keynesian theory was the explicit consideration of capitalist finance within a cyclical and speculative context."

Minsky's contribution on this state of affairs, presented in a number of essays subsequently collected in his most famous book, *Can "It" Happen Again?* (Minsky, 1982) but already anticipated in his book on Keynes (Minsky, 1975, pp. 117-130), consists of the elaboration of the so-called financial fragility hypothesis, which explains both a cyclical appearance of crisis conditions and a worsening of the crises over time.

Let us recall the picture of the economy based on both financial and non-financial economic agents, each one characterized by a set of positions, namely by flows of expected receipts and expected outlays. Minsky distinguishes three kinds of positions.

First, we have the hedge positions characterized in each period by a positive value of the difference between expected receipts and outlays;<sup>15</sup> this is, for instance, the position of a salaried employee with perhaps a small credit card debt which can be easily repaid from their monthly salary, or a relatively small mortgage on the house which can be serviced within the boundaries of their monthly earnings.

Second, we have a speculative position whenever the flow of expected receipts may in some period happen to be inferior to the expected outlays, so that the agent knows that short-term refinancing will be necessary at some point in time.<sup>16</sup> This is, for instance, the position of

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<sup>14</sup> Let us recall that within the post-Keynesian approach any fall of production below the full employment level implies a lower rate of capacity utilization, hence lower investment and a loss of productive capacity and of technical progress, due to unexploited static and especially dynamic increasing returns to scale, hence of long-term growth.

<sup>15</sup> "For hedge financing units, the cash flows from participation in income production are expected to exceed the contractual payments on outstanding debt in every period" (Minsky, 1982, p. 22).

<sup>16</sup> "For speculative financing units, the total expected cash flows from participation in income production when totalled over the foreseeable future exceed the total cash

commercial banks with short-term deposits and long-term loans where some mismatch between net deposit withdrawals and loan reimbursements may happen; or the case of a family with a relatively large mortgage which cannot be fully serviced whenever there are extraordinary expenses the timing of which cannot be foreseen, such as emergency dental treatment costs. This is also, notably, the case of investments in real productive capacity. Commonly, “a speculative unit has near term cash deficits and cash surpluses in later terms,” namely it “finances a long position in assets by short run liabilities” (Minsky, 1982, p. 27).

Third, we have the ultra-speculative positions, which Minsky christened “Ponzi finance” after the Boston banker active in the beginning of the 20th century who operated a fraudulent scheme by which interest on deposits was paid with the new deposits, attracted by a very high interest rate. Such positions are characterized by expected receipts systematically lower than expected outlays for a relatively long initial period, thus requiring additional financing of the position over time, while only at the end a large receipt is expected with which the cumulated debt can be settled.<sup>17</sup> This is the case for instance of a speculation on an asset bought with external finance, the price of which is expected to rise at a pace higher than the interest rate,<sup>18</sup> so that at the end it can be resold at a price sufficient to make a profit over and above the reimbursement of loans and interest accrued in the meantime. Mortgages to ninja (no income, no job, no assets) families are a now familiar instance of this kind of position: the rationale was an expected increase in house prices such as to more than compensate the interest expenditure

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payments on outstanding debt, but the near term payment commitments exceed the near term cash flows from participation in income production, even though the net income portion of the near term cash flows, as measured by accepted accounting procedures, exceeds the near term interest payments on debt” (*id.*, pp. 22-23).

<sup>17</sup> “A Ponzi finance unit is a speculative financing unit for which the income component of the near term cash flows falls short of the near term interest payments on debt so that for some time in the future the outstanding debt will grow due to interest on existing debt” (*id.*, p. 23).

<sup>18</sup> During a boom interest rates commonly rise, but “during an emerging euphoric boom, the improvement in expectations [concerning asset prices] may overwhelm rising interest rates” (Minsky, 1982, p. 141).

accruing on the original loan and on the subsequent loans necessary for meeting the servicing of the original mortgage. Ponzi positions are thus the most extreme case of speculative positions; in fact, Minsky also calls them ultra-speculative positions.

A financial system in which speculative positions (including Ponzi positions) are widespread is a fragile system. An increase in interest rates, or a worsening of liquidity conditions, may lead to default. Ponzi positions are extremely sensitive to such changes, as well as to changes in expectations of the final resale price of the asset being held. Whatever the asset on which Ponzi positions rely (be it gold or houses or company shares), its price cannot rise forever at a pace higher than the interest rate, and when the asset bubble comes to an end, all of a sudden Ponzi positions become untenable, bankruptcies spread, and financial institutions that had financed such positions experience wide-ranging losses.<sup>19</sup> In addition to the role of derivatives and loan packaging, this was the origin of the 2007-2008 financial crisis.<sup>20</sup>

According to Minsky, whenever the economy grows, this very fact sows the seeds of financial fragility and crisis. This is due to the fact that economic growth is accompanied by an increase in speculative and Ponzi positions, and even more so of positions which can easily become speculative or Ponzi positions if expectations of outlays or receipts worsen, for instance due to an increase in interest rates or to even a modest slowing down of the pace of economic growth. Moreover, periods of sustained economic growth are commonly accompanied by speculative booms, namely asset appreciation at a rate higher than the interest rate, favouring the formation of Ponzi positions that are remunerative until the boom ends. This is the so-called financial fragility hypothesis: financial fragility, hence financial crisis, is an unavoidable consequence of the evolution of the financial structure of the economy during good times.

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<sup>19</sup> “Furthermore speculative and especially Ponzi finance give rise to large increases in an interest inelastic demand for finance, i.e. speculative and Ponzi finance create market conditions conducive to large swings in interest rates” (Minsky, 1982, p. 29).

<sup>20</sup> For examples of recourse to Minsky’s analysis in explaining the current crisis, see for instance Roncaglia (2010; 2011), Montanaro and Tonveronachi (2012).

The conditions which enhance financial fragility are those which decrease the resilience of the financial system to shocks:

“(1) the growth of financial – balance sheet and portfolio – payments relative to income payments; (2) the decrease in the relative weight of outside and guaranteed assets in the totality of financial asset values; and (3) the building into the financial structure of asset prices that reflect boom or euphoric expectations” (Minsky, 1982, p. 150).

Thus,

“The domain of stability of the financial system is smaller the closer the articulation of payments, the smaller the weight of protected assets, and the larger the extent to which asset prices reflect both growth expectations and realized past appreciations” (Minsky, 1982, p. 144).

The connection between the financial and real sides of the economy is given by the conditions of validation of the financial structure: the “cash flows from participation in income production” recalled above in the definitions of the different kinds of financial positions depend on income and hence on aggregate demand; because of the importance of profit for agents engaged in investment activity, income distribution is also relevant. It is in this respect that Minsky utilizes the Kaleckian approach based on national accounting categories with explicit attention to income distribution (see for instance Minsky, 1982, pp. 23-57; but also his 1986 paper published in this issue: Minsky, 2013).

#### **4. Money manager capitalism**

The financial fragility hypothesis constitutes a theory of crises, in which the real and the financial sides of the economy interact engendering a cyclical sequence of events. To this, Minsky adds that crises have a tendency to increase in size due to changes in the institutions of the monetary and financial markets that bring about an increasing sophistication, and due to the reactions of policy authorities: when confronted with a serious financial crisis, monetary authorities are more or less compelled to intervene, generally by throwing liquidity into the system and occasionally by rescuing large financial institutions

deemed ‘too big to fail.’ When this happens, financial agents incorporate such policy into their expectations and are thereby induced to take on greater risks, with a more rapid and wider increase, cycle after cycle, in the proportion of speculative and Ponzi positions. In other words, Minsky utilizes the moral hazard principle not in evaluating policy actions, but in interpreting a tendency intrinsic to the economy.

Due to institutional changes, the pattern of the cycle also undergoes modifications: “whereas in the past the business cycle of experience may have been characterized by boom and bust, currently the business cycle may be characterized by boom and high level stagnation” (Minsky, 1982, p. 226).

In some important later essays Minsky (see for instance Minsky, 1993) points to something different and more fundamental: that after the competitive stage and the stage of managerial capitalism depicted by Berle and Means (1932) and subsequently by Marris (1964) we are now confronted with a new kind of capitalism, a kind he terms “money manager capitalism.”

This is a situation that – expanding on what Minsky says – may be characterized by the following elements. First, the financial sector of the economy expands relatively to other sectors. Second, a multiplicity of financial markets, both organized and over-the-counter, take the place previously occupied by direct relationships between bankers and customers. Third, financial decisions are dominated by very short term considerations (in opposition to traditional real investment decisions which concern long and very long time spans).<sup>21</sup> Fourth, financial decisions dominate over real investment decisions in the formation of profits even within real sector companies. Fifth, as a consequence of all this, the demand for and the remunerations of financial operators, as well as their power within society, burgeons.

At the centre of money manager capitalism is the activity of making money out of money. Liquidity holdings, which are necessary for the day-to-day operation of any entrepreneurial activity, and the cumulated

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<sup>21</sup> The slogan ‘value creation for the shareholder’ as the goal of real-sector companies’ management signals such a change in perspective: decisions are driven by the day-to-day stock exchange evaluation of the company, namely its share prices, rather than by long-run real investment strategies.

savings of families held in financial rather than real activities, as well as pension funds or the reserves of insurance companies, are entrusted for this purpose to financial managers who operate continuously in financial markets, making (or losing) money out of the price movements of a multiplicity of financial assets. Financial managers are motivated by the huge fees they receive when beating benchmark returns. But of course not everyone can beat the average; this leads to the kind of beauty contest behaviour that Keynes condemned as destabilizing.<sup>22</sup> The already very large funds of this kind are multiplied in size by the layers of financial derivatives created by financial institutions in the attempt to transform (quite often only in a fictitious way) maturities and risk profiles. High-frequency deals become the norm, with a twin result: first, the time horizon of financial managers shrinks to a day, an hour, a minute; secondly, the amount of financial operations determined by immediate expectations of price rise or decline come to dominate over operations driven by real economy considerations. As Keynes feared, it is now the tail of finance that wags the dog of the real economy.

## 5. Policy implications

Minsky's analysis has a number of important implications for economic policy. Let us briefly consider the main ones.

First, it clearly appears that a Keynesian policy viewpoint cannot be reduced to short-period control of aggregate demand through monetary

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<sup>22</sup> Financial managers make most of their earnings out of very short-run price movements. These are determined not so much by underlying 'real' factors but by other financial managers' expectations, that are in turn determined in the same way. Thus, sudden changes in the general climate of opinion may determine dramatic changes in asset prices. Let us recall Keynes's (1936, p. 156) example of the beauty contest: "Professional investment may be likened to those newspaper competitions in which the competitors have to pick out the six prettiest faces from a hundred photographs, the prize being awarded to the competitor whose choice most nearly corresponds to the average preferences of the competitors as a whole; so that each competitor has to pick, not those faces which he himself finds prettiest, but those which he thinks likeliest to catch the fancy of the other competitors, all of whom are looking at the problem from the same point of view."

and fiscal policy tools. It is of the utmost importance to bring under control, as far as possible, the financial fragility of the economy in order to limit the size and frequency of financial crises and their impact on the real economy. This implies attention to financial regulations which should aim at constraining financial leverage, limiting the size of financial institutions to below ‘too big to fail’ dimensions, strengthening surveillance authorities, putting checks on speculative activities (for instance through regulations on derivatives, or constraints on high-frequency trading). Due to moral hazard, preventive checks are better than ex post interventions and the eventual rescue of financial institutions should be conducted in such a way that managers and shareholders bear the brunt of the responsibility.<sup>23</sup>

Second, support to aggregate demand must be systematic. In this respect, Minsky (1975, p. 148) interprets Keynes as proposing the “socialization of investment,” (together with “intervention to affect income distribution, and a decentralized market mechanism”)<sup>24</sup> and suggests (see for instance Minsky, 1982, p. 113) that the government should pursue full employment as its main policy target.<sup>25</sup>

Third, monetary policy should attribute central importance to asset price movements, with the aim of avoiding the formation of speculative bubbles or, more generally, any situation in which Ponzi schemes appear to be profitable (i.e. a systematic, continuous increase of asset prices at a rate higher than the relevant interest rate).<sup>26</sup>

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<sup>23</sup> “We have to establish and enforce a ‘good financial society’ in which the tendency by business and bankers to engage in speculative finance is constrained” (Minsky, 1982, p. 69). For some present-day proposals towards the pursuit of this aim, see for instance Montanaro and Tonveronachi (2012).

<sup>24</sup> As Keynes put it in 1926 (in “Liberalism and Labour”, an essay included in *Essays in Persuasion*, Keynes, [1931] 1972, p. 311; quoted in Minsky, 1975, p. 147), the political problem was “to combine three things: economic efficiency, social justice, and individual liberty.”

<sup>25</sup> Minsky (1982, p. 5) also stresses that “the federal government not only stabilizes income but the associated increase in the federal debt, by forcing changes in the mix of financial instruments owned by the public, makes the financial system more stable.”

<sup>26</sup> We should keep in mind that “in a capitalist economy there are two ‘price levels,’ one of current output and the second of capital assets” (Minsky, 1982, p. 79). On the importance of keeping asset inflation under control, see for instance Kindleberger (1995).



Fourth, the remuneration of financial operators should be kept under control, keeping in mind that oligopolistic market forms dominate the financial sector where extra-profits easily translate to managerial remunerations higher than those that prevail under competitive conditions.<sup>27</sup> This should be avoided since it creates incentives against human capital accumulation in the fields of engineering and the like, which are decisive for the progress of the wealth of nations.

Finally, attention should be focused on reducing uncertainty which increases the 'price of liquidity,' thus expanding the room for financial speculation, and acts as a disincentive to real investments. This implies the existence of adequate institutions (for instance, conducive to fixed or at least stable exchange rates). In this respect one of Minsky's 'real' policy proposals, namely that the state should act as employer of last resort, acquires relevance in addition to its more traditional 'progressive' role.

## REFERENCES

- BERLE A.A. and MEANS G. (1932), *The Modern Corporation and Private Property*, New York: The Commerce Clearing House.
- KEYNES J.M. (1921), *A Treatise on Probability*, London, Macmillan; reprinted in Keynes J.M. (1973), *Collected Writings*, vol. 8, London: Macmillan.
- (1931), *Essays in Persuasion*, London: Macmillan; reprinted in Keynes J.M. (1972), *Collected Writings*, vol. 9, London: Macmillan.
- (1936), *The General Theory of Employment, Interest and Money*, London: Macmillan; reprinted in Keynes J.M. (1973), *Collected Writings*, vol. 7, London: Macmillan.
- KINDLEBERGER C.P. (1995), "Asset Inflation and Monetary Policy", *Banca Nazionale del Lavoro Quarterly Review*, vol. 48 n. 192, pp. 17-37; reprinted in *PSL Quarterly Review*, vol. 62 n. 248-251, pp. 29-50.
- MARRIS R. (1964), *The Economic Theory of "Managerial" Capitalism*, London: Macmillan.

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<sup>27</sup> On the translation of oligopoly profits into higher sectoral remunerations, see Sylos Labini (1984), who also stresses that such high remunerations are then embodied in the prevailing notion of sectoral production costs, thus facilitating collusive behaviour and making it more difficult to constrain the extra-profits stemming from sectoral market power. Minsky hints at this aspect towards the end of the paper published below (Minsky, 2013, p. 95).

- MINSKY H.P. (1964), "Financial Crisis, Financial Systems, and the Performance of the Economy", in Friend I. (ed.), *Private Capital Markets: A Series of Research Studies Prepared for the Commission on Money and Credit*, Englewood Cliffs (NJ): Prentice Hall, pp. 173-380.
- (1975), *John Maynard Keynes*, New York: Columbia University Press.
- (1982), *Can "It" Happen Again? Essays on Instability and Finance*, Armonk (NY): M.E. Sharpe.
- (1993), "Schumpeter and Finance", in Biasco S., Roncaglia A. and Salvati M. (eds.), *Market and Institutions in Economic Development: Essays in Honour of Paolo Sylos Labini*, London: Macmillan, pp. 103-115.
- (2013), "The Relevance of Kalecki: The Useable Contribution", *PSL Quarterly Review*, vol. 66 n. 265, pp. 95-106.
- MONTANARO E. and TONVERONACHI M. (2012), "Financial Re-Regulation at a Crossroads: How the European Experience Strengthens the Case for a Radical Reform Built on Minsky's Approach", *PSL Quarterly Review*, vol. 65 n. 263, pp. 335-383.
- RONCAGLIA A. (2009), "Keynes and Probability: An Assessment", *The European Journal of the History of Economic Thought*, vol. 16 n. 3, pp. 489-510.
- (2010a), "A Patchwork Post-Keynesian/Evolutionary Approach to Income Distribution", in Gehrke C., Salvadori N., Steedman I. and Sturn R. (eds.), *Classical Political Economy and Modern Theory: Essays in Honour of Heinz Kurz*, London: Routledge, pp. 207-218.
- (2010b), *Why the Economists Got It Wrong: The Crisis and Its Cultural Roots*, London: Anthem Press.
- (2011), "Macroeconomics in Crisis and Macroeconomics in Recovery", *PSL Quarterly Review*, vol. 64 n. 257, pp. 167-185.
- SYLOS LABINI P. (1962), *Oligopoly and Technical Progress*, Cambridge (MA): Harvard University Press.
- (1984), *The Forces of Economic Growth and Decline*, Cambridge (MA): MIT Press.