THE BASIC ASPECTS OF THE HYMAN MINSKY’S FINANCIAL INSTABILITY HYPOTHESIS

Introduction: Minsky about Keynes’s theory, uncertainty, money and investments

Minsky was a leading advocate of Post Keynesianism, one of the main heterodox schools of modern economic thought. Developing the underlying principles of the Post Keynesian school, Minsky showed that Keynes’s main ideas had been treated incorrectly, while many of them were simply omitted by J. R. Hicks, A. Hanses, and other proponents of traditional Keynesianism.

“Decision-making under uncertainty, the cyclical nature of the capitalist process, and financial relations of an advanced capitalist economy” (Minsky, 1975. P. ix) are what Minsky referred to as the elements of Keynes’s theory lost in traditional Keynesianism. The very main aspect is the first one. A capitalist economy exists in a historical time where “its past is given and cannot be changed, and… its future is uncertain and cannot be known.”

The Post Keynesian perception of uncertainty is radically different from mainstream (in particular, neoclassical) one. According to the Post Keynesian approach, uncertainty is the situation when agents do not know both quantity of possible future events and probabilities of these events. Therefore, the probability theory is irrelevant for an analysis of situations in which uncertainty takes place (Davidson, 1991). As Keynes (1937. P. 213 – 214) wrote: “By “uncertain” knowledge, let me explain, I do not mean merely to distinguish what is known for certain from what is only probable. The game of roulette is not subject, in this sense, to uncertainty; nor is the prospect of a Victory bond being drawn. Or, again, the expectation of life is only slightly uncertain. Even the weather is the only moderately uncertain. The sense in which I am using the term is that in which the prospect of a European war is uncertain, or the price of copper and the rate of interest twenty years hence, of the obsolescence of a new invention, or the position of private wealth-owners in the social system in 1970. About these matters there is no scientific basis on which to form any calculable probability whatever. We simply do not know”. We can say that uncertainty is the essential feature of any economic system characterized use of durable assets and high degree of the division of labor. In a such system all agents are interdependent in a real time; future successes and failures of each agent depends upon the decisions of the others, and there are no opportunities to predict the future variables.

To provide protection from the uncertainty money is created as an absolutely liquid and reliable asset. However, money cannot be readily produced, as was pointed out by Keynes in his General Theory in Chapter 17. Consequently, increasing (decreasing) the demand for money by decreasing (increasing) the demand for productive assets “responsible” for national income and employment will lead to a recession (recovery) in an economy. This lays the basis of the cyclical nature of a capitalist economy. The point is the following. When agents increase demand for money or other non-productive assets, real GDP and employment will not increase. But decreasing demand for fixed capital and other productive assets will lead to falling GDP and employment. The outcome is a recession. And visa versa: increasing demand for productive assets – that is, productive investments – together with decreasing demand for nonproductive liquid assets including money will generate economic expansion. So, business cycles are turned to be the endogenous phenomenon which is inherent for the market capitalist economy. This conclusion is explicitly inconsistent with the neoclassical doctrine of the market economy’s stability.

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1 It is the models of traditional Keynesians that form the basis for introductory macroeconomics courses, and it is according to these models that Keynesianism is judged. At the same time, it should be remembered that those models do not fit well into the modern mainstream – although they are slightly better than the theory of Keynes himself or Post Keynesian elaborations – primarily because many of them are not based on microeconomic foundations.

2 The quote belongs to B. Moore and is taken from: (Arestis, 1988. P. 42).

3 This thesis is correct with respect to commodity money. Credit money is often characterized by endogeneity (see below), which is why this assertion cannot be applied to it. It is, however, characterized by a zero labor intensity, just like commodity money.
Investments in more details: endogenous money supply and two price levels

The described cyclicity can be aggravated by the complex financial relationships that enable greater investments during a recovery phase, while resulting in a heavy debt burden for investors during a recession. Thus, Keynes’s theory asserts a cyclical instability inherent in capitalist economies. Those are the very aspects that were lost in traditional Keynesian macroeconomic theory, while the theory of Keynes himself wound up as just a specific case of the neoclassical theory.

These circumstances encouraged Minsky to assert an inherent relationship between traditional Keynesianism and neoclassical theory. He argued that both approaches were “based upon a barter paradigm – the image is of a yeoman or craftsman trading in a village market” (Minsky, 1975. P. 57). His own approach “rests upon a speculative financial paradigm – the image is of a banker making his deals on a Wall Street” (Minsky, 1975. P. 58).

Minsky also noted that in some of his articles (Keynes, 1937; 1939), published after General Theory…, the British economist described the processes of accumulating fixed capital and its financing, thereby laying the foundation for the endogenous money supply theory. According to Keynes, the acquisition of capital is immediately preceded by a businessman receiving the money (“finance” according to his terminology) from financial institutions. The latter’s creation of money by providing credit to investor firms serves as a necessary condition for investment. However, Keynes did not expressly formulate this thesis, which is only implied in his theory. Minsky stressed this fact, noting that “in a capitalist economy, money is tied up with the process of creating and controlling capital assets.” (Minsky, 1986. P. 223). In other words, money is an asset created within an economy, i.e. endogenously, to acquire productive assets (first of all, fixed capital).

In the 1950s, Minsky showed that, when faced with insufficient reserves, financial institutions satisfy the demand by firms for investment-financing money through financial innovations (Minsky, 1957). For example, executing transactions involving repurchase agreements (selling and then buying a debt obligation) results in the seller immediately receiving money that can be loaned.

Later, Minsky and other Post Keynesians pointed to important financial innovations: using deposit certificates and foreign exchange loans, securitization (converting bank loans into securities), and off-balance sheet activity. This latter type of innovation may be expressed, for example, through issuing “facilities” to several firms in the form of an obligation to provide loans in certain amounts upon their demand, etc. (Chick, 1992). This type of financial evolution reduces the efficiency of the central bank’s monetary policy and enhances the endogeneity of the money supply.

Minsky built on the ideas contained in Chapter 17 of the General Theory, showing that the value of any long-term asset is determined by its own rate of interest. Simply put, this indicator is the sum of all benefits received from an asset, less its carrying costs. Those benefits include not only monetary proceeds (pecuniary yield) but also the implicit advantages of owning it, e.g., high liquidity. It should be stressed that all of the above benefits are anticipated and not actual values.

According to Minsky, an asset’s own rate of interest is none other than the demand price for that asset, reflecting its attractiveness as perceived by a particular investor (or the market as a whole). There is also the asset’s supply price. It is nothing more than the price of its production and is determined by the sum of the average cost (affected by the market power) markup, or the case with imperfect competition, which was usually assumed by Minsky and other Post Keynesians. Thus, a capitalist economy is characterized by two price levels. One of these levels depends on the conditions of asset production, while the other depends on the capitalized value of anticipated income from their use. The amount of investment in an asset is determined by the relationship between the demand and supply prices. Strictly speaking, investments in an asset will be made only if the demand price is equal to or exceeds the supply price.

However, these price levels are not the only investment factors. Unless firms seek the assistance of financial institutions and the market to finance their investments, there is a serious limitation on investments in the form of internal financial resources (funds). Whenever external financing is used for investments, additional determinants of investments appear, i.e., the lender risk and the borrower risk. The first risk relates to the concerns of banks and other financial institutions that the borrower might not be able to repay the debt. The se-

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1 From the point of view of Minsky and other leading Post Keynesians (P. Davidson, F. Carvalho, L. R. Wray, etc.), the most significant elements of the Keynes’s legacy – and most underestimated in traditional Keynesianism – are Chapters 12 and 17 of his General Theory of Employment, Interest and Money. See in particular: (Davidson, 1972; Carvalho, 1992).

2 It should be noted that the endogenous money supply concept itself was not invented by Minsky. Many Post Keynesians wrote that money is created endogenously in a modern capitalist economy (Arestis, 1988; Chick, 1992; Davidson, 1972; Wray, 1992). But Minsky’s contribution is that he identified a relationship between money supply dynamics combined with its structural changes due to the emergence and spread of more liquid money aggregates, on the one hand, and the process of accumulating fixed capital through productive investments, on the other.

3 Keynes himself did not put particular stress on the differences between values for these two types.

4 The terms “borrower risk” and “lender risk” were first suggested by Keynes in Chapter 11 of the General Theory. However, they were lost by his immediate followers.
cond risk is associated with the borrower firm’s concerns that it might not be able to repay the loan. Both risks are directly correlated to financial leverage, i.e., the ratio of an economic entity’s debt (in this case, the investor firm) to its equity. Increasing the amount of investments financed through debt will sooner or later entail an increase in the lender and borrower risks, which will limit their value.

Thus, the function of investments includes factors reflecting the uncertainty of the future and the degree of pessimism or optimism (we can remember “animal spirits” described by Keynes in Chapter 12 of his General Theory) by economic entities. It is these factors, rather than the determinants associated with the current top productivity of capital (as in neoclassical theory), that play an important part in determining the amount of investments. Furthermore, the variables in the investment function reflecting the financial condition of investors are equally important. Thus, the amount of investment by a firm depends on its liability structure.

The Financial Instability Hypothesis as the theory of cycles and crises

The financial instability hypothesis (hereinafter referred to as the FIH) is based on Minsky’s theories of money, financial evolution and investment, as well as on I. Fisher’s concept of debt deflation (Fisher, 1933). According to this concept, the downward trends in an economy are aggravated by lowering prices (supply prices in Minsky’s terms), as such a reduction makes real debt a heavier burden, leading to insolvency and bankruptcy for many production units.

The FIH is the basis for the “theory of how a capitalist economy endogenously generates a financial structure which is susceptible to financial crises” (Minsky, 1983. P. 289-290). A financial structure here is “the market interactions between borrowers and lenders and the balance sheets of non-financial firms, intermediaries and households that reflect these interactions” (Pollin, 1994. P. 97). According to the FIH, economic trends are largely determined by the way in which firms finance their fixed capital investments. In the beginning of the increasing stage of the business cycle (recovery phase), hedge finance prevails, where current monetary proceeds are sufficient for firms to repay debt including interest. This type of financing is, to a great extent, dependent on the firm’s heavier reliance on internal financial sources rather than on external funds. An explanation is that during the recovery phase, the recent depression is still fresh in the memories of economic entities. This is why lender and borrower risks are still high.

However, those memories fade gradually, particularly because national income created through hedge investments is increasing. Lender and borrower risks are decreasing. As Keynes wrote, “during a boom the popular estimation of the magnitude of both these risks, both borrower’s risk and lender’s risk, is apt to become unusually and imprudently low.” (Keynes, 1978. P. 210). As a result, firms actively switch to external financing for capital investments. Over time, a situation arises where the monetary proceeds for many firms are only sufficient to pay interest, but are not enough for the amortization (repayment) of the respective principals. To save themselves from bankruptcy, those firms are force to take out new loans to repay the old ones. Minsky called this speculative finance. Growing interest rates or falling money proceeds for firms inevitably transform speculative finance into Ponzi finance, where those proceeds are inadequate even for regular interest payments. The only way out of this situation is to increase the amount of debt to repay old loans. While speculative finance is characteristic of the boom phase, Ponzi finance leads to recession. This is because, sooner or later, firms using this type of financing will become unable to obtain new loans, either due to increased lender risks (reflecting the pessimism of financial institutions) or due to the general lack of financial resources (money and its substitutes) in the economy. If firms start to sell their productive assets to receive those resources, this will lead to a decrease in their demand price, investment levels, and, naturally, to an economic crisis. Such crisis can be made worse by excessively high borrower risk (resulting in lower investments by firms than the amount that would have been financed based on internal sources) and, particularly, by the demand price for productive assets falling below the supply price. This is because the latter case will make the investment process halt altogether.

Thus, the most important reason for periodic debt crises is the systematic inability of firms to repay their debts in the financial sector. This is an important conclusion of the FIH. Another is that, during a business cycle, the financial system becomes more and more fragile, i.e. the liquidity of an economic entity balance sheet decreases. In other words, a business cycle can be perceived as a phenomenon related to changes in the financial fragility of an economy (Carvalho, 1992.

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1 Minsky believed that his financial instability hypothesis was created under the influence of ideas by Keynes, Fisher, and also Simons (Simons, 1936. P. 130) who was the first to note the dangers associated with the endogenous creation of money through short-term financing of long-term investment projects. On Minsky’s earlier studies, see: (Toporowski, 2008).

2 This financing technique was named after a Boston banker, C. Ponzi, who, immediately after the First World War, engaged in financial speculations similar to those that were applied decades later in post-Soviet Russia by financial companies, such as MMM.
Conclusions from the Financial Instability Hypothesis for economic policy and the causes of the Great Recession

Minsky argued for active macroeconomic and institutional intervention by the government in the economy. He treated the government’s macroeconomic role, first of all, as preventing a financial collapse during recessions and depressions, i.e. maintaining monetary proceeds for production and financial units. In his opinion, for this purpose, expansionist fiscal and monetary policy should be pursued during recessions. The former increases income for the private sector through increasing aggregate demand, enabling many firms to repay their debts and avoid bankruptcy. The latter increases liquidity of the financial sector, enabling financial institutions facing bad debts or a mass withdrawal of customer deposits to “stay afloat.” According to Minsky, this type of intervention saved Western countries from a new Great Depression by preventing debt deflation from the 1970s through the 1990s. On the other hand, stagflation was the price to pay for that prevention.

However, a macroeconomic policy cannot change the underlying parameters of advanced modern capitalist economies which make them prone to instability. The problem is that a repeated policy of government stimulus lulls both firms and banks into a false sense of security. As more and more investment projects are successfully implemented, economic entities will become more and more reckless. As Minsky noted, “once the doctrine of salvation through investment becomes deeply ingrained into our political and economic system, the constraints on foolish investments are relaxed. This is especially so if the government stands ready to guarantee particular investors or investment projects against losses” (Minsky, 1985. P. 52). In the Post Keynesian tradition, this phenomenon is usually called the Minsky paradox.

According to Minsky, a capitalist economy can be saved from instability through the government’s institutional policy. This policy should consist, first of all, of stimulating changes to the aggregate demand and production technology structure: the share of consumption in the aggregate demand should increase, while technology should become more labor intensive. He suggested that “an economy that is oriented towards the production of consumption goods by techniques that are less capital intensive... will be less susceptible to financial instability and inflation.” (Minsky, 1985. P. 53). Second, this type of policy should require a simpler financial system, which would be achieved mainly through limiting short-term lending for long-term investment projects, i.e. through restricting speculative and Ponzi finance. As Minsky noted, “the financing of capital asset ownership and investment is the critical destabilising phenomenon” (Minsky, 1980. P. 520). While all of these recommendations were suggested as early as the 1980s, they remain relevant today.

Minsky died in 1996, but his ideas were adopted by his students around the world. The Great Recession that hit the world 12 years later resulted in active support for his ideas (Wray, 2011; Wray, Tymoigne, 2008). From the perspective of Minsky’s theory, the main reasons for the Great Recession are obvious. The long growth that was observed at the turn of the century and was caused, in particular, by the specific combination of the development of the “new economy” (related to telecommunications, Internet, etc.), heavy financial innovation and globalization processes, increased the financial fragility of the entire global economy. This boom caught economic entities off guard around the world, and they took out many “doubtful” loans and became illiquid and insolvent. Quite logically, the “payback” was the global crisis. Thus, according to Minsky, the Great Recession is a consequence of the functioning and evolution of the

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1 Therefore the financial instability hypothesis is often called also the financial fragility hypothesis.
2 It should be noted that the idea of financial fragility caught the attention of mainstream economists, represented by the New Keynesian economists such as O. Stiglitz, B. Bernanke, etc. This led to the publication of famous articles (Bernanke, Gertler, 1990; Greenwald, Stiglitz, 1993) that are considered pioneering works for some reason, although it was Minsky who first studied the concept of financial fragility and its role. Moreover, the New Keynesian economists interpreted financial fragility in their accustomed manner as a consequence of asymmetric information. Those authors also did not appeal in any way to uncertainty, the special role of money, financial evolution or investment (Wray, Tymoigne, 2008. P. 3).
3 The authors of many papers applied the FIH in their analyzes of financial crises in Southeast Asia (Arestis, Glickman, 2002; Kregel, 1998), Latin America (Cruz, Amann, Walters, 2006; De Paula, Alves Jr., 2000), the Middle East (Dufour, 2006), Greece (Argitis, Nikolaidi, 2014) and Eastern Europe (Bezemer, 2001).
4 Although debt financing of consumption expenditures (not investment) was the main problem, see: Kapeller. Schütz, 2015.)
institutions belonging to the modern advanced capitalist economy. Overcoming this crisis and preventing it from repeating is impossible without profoundly reforming those institutions. Some areas of focus within such reforms might include restricting the securitization and development of derivative financial instruments, as well as the short-term financing of long-term projects. It is also desirable to pose stricter requirements on the liquidity of financial institution balance sheets.

References

Розмаїнський І. В. Основні аспекти гіпотези фінансової нестабільності Хаймана Мінськ

У статті розглядаються основні аспекти гіпотези фінансової нестабільності, розробленої Хайманом Мінські. Ця концепція стала дуже актуальною через події, пов’язані з Великою рецесією. Автор роботи демонструє як зв’язки між теорією Кейнса і підходом Мінські, так і посткейнсіанський “дух” описуваної гіпотези. Підкреслюється особливість розгляду необхідності і грошевої. Показано, що гіпотеза дозво...
ляє зрозуміти, як сучасна ринкова капіталістична економіка ендогенно стає «фінансово тенідітною» і, таким чином, схильною до криз. Автор демонструє, що Велику рецесію можна трактувати як наслідок процесів, що описаність гіпотезою фінансової нестабільності.

Ключові слова: гіпотеза фінансової нестабільності, Мінскі, посткейнсианство, фінансова крихкість.

Розманійский I. В. Основные аспекты гипотезы финансовой нестабильности Хайлмана Минского

В статье рассматриваются основные аспекты гипотезы финансовой нестабильности, разработанной Хайлманом Минским. Эта концепция стала очень актуальной из-за событий, связанных с Великой рецессией. Автор работы демонстрирует как связи между теорией Кейнса и подходом Минского, так и посткейнсианский «дух» описываемой гипотезы. Подчеркивается особая роль неопределенности и денег. В статье показано, что гипотеза позволяет понять, как современная рыночная капиталистическая экономика эндогенно становится «фінансово хрупкой» і, таким образом, подверженной кризисам. Автор демонстрирует, что Великую рецессию можно трактовать как следствие процессов, описываемых гипотезой финансовой нестабильности.

Ключевые слова: гипотеза финансовой нестабильности, Минский, посткейнсианство, финансовая хрупкость.

Rozmainsky I. The Basic Aspects of the Hyman Minsky’s Financial Instability Hypothesis

This paper considers the basic aspects of the financial instability hypothesis developed by Hyman Minsky. This conception has become very pertinent due to the events concerned with the Great Recession. The author shows both links between Keynes’s theory and Minsky approach and Post Keynesian “spirit” of the described hypothesis. The special role of uncertainty and money has been emphasized. The paper shows that the hypothesis provides an understanding of how the contemporary market capitalist economy endogenously becomes “financially fragile” and thus prone to crises. The author demonstrates that the Great Recession can be treated as a consequence of the processes described by the financial instability hypothesis.

Keywords: financial instability hypothesis, Minsky, Post Keynesianism, financial fragility.

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