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FADE-OUT AND RESURGENCE OF SUBJECTIVITY IN MARKET ANALYSIS

1. Introduction

Since the economic and financial downfall of autumn 2008, we have been obliged to see negative aspects of globalization of capital: as stocks, bonds and all possible kinds of securities were dealt with internationally, creditors became literally international and debtors, once their companies went insolvency, had to confront with these international creditors beyond their national boundaries. Each nation-state as well, with 'limited' responsibility to save its own members, had to confront with this situation. But there is enough historical evidence that 'financialization' was promoted these thirty years by many nation-states in the world. It meant increased dependency of nation-states as well as respective members and companies, on non-productive sectors for their profits. The process has been structurally and institutionally constructed and maintained, so that we cannot think of the post-crisis global economy without taking these institutions and structures into consideration.

But it is also meaningful to keep in mind that this financialization is sometimes called as the rise of 'the ownership society'. It implies why so many people, not only of developed countries but of developing countries and of small open economies, became involved into the trend. This paper, thus, while taking those structural assumptions above as given, investigates the place of a concept, subjectivity, in the process of financialization. We look into this detail by focusing on a very popular book by Robert Shiller, "Irrational Exuberance". Published in 2000, this book warned the drastic fall down of stock price in America and got many readers with its right guess. Then the second edition in 2005, revised and updated by the analysis of real estate market, again anteceded our current crisis and has been getting still more readers. The term, irrational exuberance, was originally used by Alan Greenspan in 1996 in a dinner speech, the ex-chairman of the Federal Reserve Board, to describe the behavior of stock market investors, which caused precipitous drop of stock markets immediately after the speech. With this episode Shiller has come to the idea of writing the book, he says.

According to Shiller who watches the data from 1870s to the present, the most recent bottom price was hit in July 1982 and since then the stock price has arisen spectacularly until 2000 especially with the rapid increase from 1992. To explain this phenomenon, he points out structural factors in Part One, cultural and psychological factors in Part Two and Three respectively, and in the following Part Four, critically investigates the so-called efficient market model with random walk theory. Finally, he shows several advices taking the assumption of volatility of stock market as given. Shiller belongs to the group of behavioral finance theorists and focuses on the importance of irrational enthusiasm in human behavior. The reasoning by Shiller, a kind of universalism with psychology in spite of his emphasis on subjectivity, has endorsed the inevitability of bubbles in the phase of financialization since the 1980s: Because psychological factor seems to be valid for everyone, his reasoning has functioned as an epistemological hindrance for many people, not to see the problems of globalization structurally. With this consideration,

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we clarify that the ‘irrational exuberance’ is not any principle of universal or natural law, but rather mere description or ‘hindsight’ of the bubble.

2. Precursors: the Austrians and Oskar Morgenstern

In the 1930s and 1940s subjectivity was picked up and was discussed in connection to foresight, to risk and uncertainty, and to apperception, which turned out to be the foundation of analysis of stock markets. We could place Oskar Morgenstern in the middle of this discussion, as we could then grasp the constellation around the concept of subjectivity. Further, Morgenstern was also an early contributor to random walk theory, in his collaboration with Granger in the 1950s and 1960s, which is the connecting point to further development in the 1970s. We sketch the early arguments here.

2-1. Subjectivity and Foresight

Subjective value, as is written in the ‘Whig’ or the textbook-type of narrative of history, was taken into consideration by the marginal revolution of economics in the latter half of the nineteenth Century and one of the performers of the revolution was the Austrian School of Economists. The School was founded by Carl Menger, and one of two early followers, Friedrich von Wieser, contributed to explicit formulation of subjective value. Wieser explained that ‘... both exchange value and use value are subjective and vary according to personal circumstances. And everyone needs to have an exact subjective estimate of the value of money to oneself’, but ‘this personal attitude can have no effect on the movement of goods in the great economic exchange between one economy and another’¹. He then emphasized that ‘...the word value alters its original sense somewhat, when transferred from the subjective relation to wants to the objective relation to price’². Actually, this was common understanding of subjectivity until the beginning of the 20th Century. Subjectivity, in this understanding, vanishes into the process of price building, when respective individual comes to some market and shows his/her valuation, bargaining with sellers or buyers. Neither Wieser himself nor other Austrians after that explicitly asked whether it would hold true regardless of the number of participants in the market, focusing rather on the function of markets themselves absorbing individuals’ subjective value.

Exceptionally, Morgenstern, who was trained under the tradition of the Austrian School, paid attention to the economic individuals hidden behind the subjective value theory.

‘Böhm-Bawerk and Wieser have stated clear enough that prices are results from different activities of separate individuals and their wills. But this side of price phenomena became soon out of consideration as “self-evident” and prices got to be operated as independent areas, separate from judgments and acts of economic subjects standing behind. ... But it all matters for the theory of foresight, to come back to the actual behaviors of individuals and to find out the base for the direction of acts of households (Wirtschaftler in German) and entrepreneurs. Further it is necessary to prove whether the point of reference (Orientierungspunkt in German) which founds together in its system of subjective rationality of economic behaviors is eventually changeable or stiff’³.

This idea was shown in his treatise of economic foresight in 1928. According to Morgenstern, subjective value judgments of separate individuals of households and entrepreneurs be-

¹ F. Wieser, 1893, *Natural Value*, tras., by Christian A. Malloch, ed., by William Smart, London: MacMillan and Co., p.50.

² *Ibid.*, p.51.

³ Morgenstern 1928. p. 25-26. (tentative English translation by Nakayama).

come important in the theory of foresight and the changeability of the foundation of subjective rationality must be examined as the 'point of reference'.

Then Morgenstern investigated this 'point of reference' and discussed that it is typically shown in prices of goods, but that these prices are resulting data of other individuals' acts, not fully given to individuals but only as some probability, corresponding to their 'subjective rationality'⁴. Morgenstern then discussed, as the case of a household, this subjective rationality could stably be reached in equilibrium, but this equilibrium itself is usually grasped to have a system of rhythmical wave, and what is more, if there comes some change into unknown direction for an individual, it would lead to reduction of rationality of his behaviors, which consequently also affects the reduction of rationality of others' behaviors. According to Morgenstern, this kind of change in unknown directions or 'economic fluctuations' can occur not only by price changes, but also owing to many kinds of changes of particular quantities such as traffic, harvest, quantity of money, volume of production, for which all the people are responsible. These are causes for the possibility of falling into disequilibrium process.

In this connection, Morgenstern gave a footnote of reference to Pigou's book, "Industrial Fluctuation" (1927), and did not forget to add that the fluctuations could not necessarily be approached in psychological theories, but that there were also cases of fluctuations with objective circumstances like new method of production, inventions, or catastrophe. We can see that Morgenstern was conscious of English contributions as well as those of the Austrians, in thinking of subjective or psychological factors. Attempting to overcome a simple interpretation of subjectivity absorbed into objectivity of equilibrium, he also posed the question whether the equilibrium itself or its objectivity could necessarily be stable. Here the subjective rationality of producers or entrepreneurs also became important.

In this connection, it deserves our attention that Morgenstern briefly mentioned the concept of speculation in his analysis of the impact of the change of subjective rationality on the objective rationality, though there was some confusion in his usage of the distinction of households and entrepreneurs.

"... But the reduced subjective rationality of behavior of some household indicates the reduced objective rationality of the whole system, from which an 'error' giving further impact, arises. This 'error' can mean some 'profit' of another one, that is, it can result in an over-proportional transmission of purchasing power into another control power, or it can give rise to pure loss. ... The (above-mentioned) possibility is that I have a monopoly over some knowledge in the change of data and the existence of this monopoly is unknown... But... the value of my monopoly continuously decreases. This case is not as hypothetical as it might seem: it plays a considerable role in the stock-exchange speculation".

Here, not markets in general but those of stock-exchange speculation were explicitly mentioned and with it, subjective rationality was connected to the chance of getting more profit from the inequality or monopoly of knowledge and information of changing data. If someone knows more about the change of some data, it would bring him more profit from the 'error' of someone else. There some disequilibrium would be caused by reduced subjective rationality. But as the title of his treatise shows, Morgenstern did not look into the issue of speculation itself in detail and focused on the problem or impossibility of foresight from this perspective. Still, it is worthwhile to notice that Morgenstern was led to the concept of speculation in relation to subjectivity.

⁴ Morgenstern 1928. P. 27-28.

2-2. Subjectivity in Risk and Uncertainty

Then, subjectivity became important in line with the time element or with future events in considering speculation. Morgenstern, after publishing the treatise above, developed his direction of research especially with the help of acquaintance with F. H. Knight who had made a famous distinction of concepts of risk and uncertainty⁵, and published an article in *Zeitschrift für Nationalökonomie*, examining the relation between perfect foresight and equilibrium in 1935, where he argued that these two concepts did not come along together. As is known, this article was translated into English by Knight and was published in a journal for English readers, which confirms Knight's high valuation of this article. According to Morgenstern, there would come no equilibrium but rather contradiction if more than two 'homo economics' had perfect foresight, who would seek for maximization of profit respectively for themselves. Seen in retrospect, what bothered Morgenstern most was the conflict of interests of those two homo economics, not being complementary. In this sense he came into an impasse, not being able to formulate mixed strategies of allocating probability for each economic player with opposing or cooperative interests. But he went deeper into the question whether subjectivity could possibly penetrate itself even in the 'social' economy with more than two individuals.

More importance of this article can be laid in that Morgenstern opened a way to look into the meaning of subjectivity: he articulated the problem of subjectivity into several categories of risk, uncertainty and expectation, in relate to the degree of foresight and to the degree of 'effectiveness' of foresight. In this sense, we can also see some influence of J. M. Keynes and of Karl Menger, as well as Knight, on Morgenstern, both of whose names were explicit in the article. As to the influence of Keynes, Morgenstern, after classifying who of economic theorists had ever thought of perfect foresight with reservation, wondered critically whether Keynes, in his *Treatise on Money*, thought of imperfect foresight in his mentioning of 'correct forecasting' or 'accurate forecasting'⁶. Morgenstern thought that it was not a problem of accuracy or correctness, if there was not an assumption of perfect forecasting. Morgenstern introduced the distinction between technical "foreseeability" and effective foresight instead and argued that the latter could be less or more than the former. This effective foresight could be seen as a variant of subjectivity. The difference of effective foresight came, 'from the technical data obtainable from time to time, ... according to the degree of actual employment of the economic science'⁷. This statement reminds us of his early idea that the degree of diffusion of knowledge or information on some data determined the degree of penetration of subjective rationality.

Further, in exploring the meaning of imperfect foresight, Morgenstern managed to work out the concept of expectation, again as another variant of subjectivity.

'With imperfect foresight, with the possibility of other prices, e.g., inability to eliminate factors of disturbance in my expectation, it is always conceivable that I, on the grounds of temperament, of caprice, of daring, etc. form my expectation differently than technical foreseeability would, perhaps, make it necessary for me. For example, I am inclined at one time and at another I am not inclined to undergo a risk. In other words, where really effective final foresight is lacking, the element of expectation appears ... Expectation depends, thus, only to a limited degree on foresight'⁸.

Here it is shown that 'effective' foresight could be determined not only by the knowledge of economic theory but also influenced by expectations of individuals, which were to be formed by respective attitude towards/ against some risk in each case. In this connection, by the way,

⁵ About the detail of this acquaintance and their mutual influence, see Nakayama 2010.

⁶ Morgenstern 1935/ 1976, p. 170.

⁷ *Ibid.*, p. 178.

⁸ Morgenstern 1935/ 1976, pp. 189-190. Italics are given in the original text.

the contributive articles of Karl Menger on risk and uncertainty were mentioned, which showed direct influence on Morgenstern⁹.

2-3. Subjectivity as Apperception

Further variant of subjectivity was considered in relation to individuals' apperception. In 1940, Knight published an article, "What is Truth" in Economics?. Apparently it was a critical review article of a book by T. W. Hutchison, *The Significance and Basic Postulates of Economic Theory* published in 1938¹⁰. The critic was sharply directed to the inconsistency of Hutchison's methodology, and if we take the fact into consideration that Hutchison investigated Morgenstern's article of 1935 considerably and explicitly there, we might be able to see Knight's article as a defense of Morgenstern from misleading interpretation by Hutchison. Actually, the chapter where Hutchison argued the distinction between 'subjective' and 'objective' rationality was originally published in the same journal *Zeitschrift für Nationalökonomie* in 1937 under the title of 'expectation and rational conduct', which implies his direct consciousness of Morgenstern's contribution two years before. For Knight, even though Hutchison attempted to annihilate or at least to ridicule Wieser's psychological method¹¹, the analysis was too naïve and unsuccessful, so that Hutchison rather retreated to Wieser's position from Morgenstern's one.

But what is more interesting is that Knight developed his own view of subjectivity in this article. Without using the very term of subjectivity, he examined its meaning in the following perspective, '... what we perceive, or are able to perceive, is largely a matter of the "apperceptive mass" — and this involves both expectation and interests'¹². That is, for Knight the function of one's perception of external world and one's subsequent judgment must be explored when inner or psychological value theory is to be discussed. In so doing, as the title of this article implies, Knight asked the question, 'What is truth?' in relate to observation and inference in economics. For this purpose, he distinguished three categories of knowledge economics was supposed to deal with: The first is knowledge of the external world and the second is the 'truths of logic and mathematics', while the third, the most important here, being knowledge of human conduct. And he examined the meaning of subjectivity for the second and for the third categories, and came to the understanding that the contrast of subjective and objective was neither self-evident nor absolute.

Knight started, in connection to the second category, with examining the most basic proposition of economics that individuals maximize their satisfaction or their utility and doubted the rigorousness of it, saying that '... in the absence of any technique of measurement, there is no clear differentiation between a subjective state and an objective quality, and the reference of an experience to the external world or to the mind is shifting and largely arbitrary'. Then he went on to the third category and also argued critically, that a really thoroughgoing *laisser-faire* individualism accepting individual preferences was even theoretically impossible under any conditions fundamentally.

⁹ Morgenstern mentioned Menger's article of 1934 and his book of the same year (*Ibid.*, p. 175 and p. 180).

¹⁰ For researchers on Hutchison, who evaluate this book positive, find Knight's article unfairly critical to him. 'At this distance of time one might say that Knight was perhaps too severe in his attack on such a young and promising academic. ... However, ... Knight's criticism created a good deal of general interest, among fellow economists, in the book of a little-known economist from England!' (Ghosh 2007, p. 164). See also Hart 2003.

¹¹ Knight quoted a phrase of Hutchison where Hutchison picked up a sentence of Wieser:

' "We can observe natural phenomena only from outside, but ourselves from within". (This sentence is taken from Wieser.) The employment of this inner observation is the psychological method' (This phrase is given by Hutchison, following Wieser's own terminology).' (Knight 1940, p. 15)

¹² Knight 1940, p. 11.

‘...it is a fact to be kept in mind and recognized as a condition of talking sense about human interests, that everyone, habitually and inevitably, makes a distinction, which is vital, however vague it may be, between personal preferences and values assumed to be objective. ... No discussion of group action can be carried on in propositions which merely state what “I want”¹³.

As is shown here, individuals make a distinction between their preference or satisfaction of their own wants on one hand and social value on the other. Though this was rather an external critic, Knight fundamentally denied the idea that subjectivity in the sense of individual preference, once confronted with others and collected into a society, would naturally be absorbed or integrated into objectivity.

Further, under these assumptions, he discussed the problem of prediction or the limitations of the possibility of prediction, and argued that the basis of prediction would be social psychology dependent not only on statistical extrapolation but also on individuals’ insight and interpretation what was socially right answers and what they themselves could do with their competence. This corresponds to the idea of Morgenstern that expectation depends on the foresight to a limited degree.

3. Subjectivity fading-out in Capital Market

As was discussed in the previous part, the concept of subjectivity itself was explored by a few economists to a considerable extent in the 1930s and at the beginning of the 1940s, and was recognized as an important issue in the analysis of fluctuations and disequilibrium. But this view was not taken over afterwards: main stream economics was formulated around the concept of equilibrium, including that of business cycles and fluctuations. In the Austrian School of Economics, for example, Hayek’s version of market analysis became much more popular than that of Morgenstern¹⁴, the former of which basically believed in the function of market to convey all the necessary information to achieve the objectivity and order of a society. This idea has survived for several decades and has got a name, the efficient market model, at the beginning of 1970s, which was discussed as an issue of capital market. In our perspective, this was the phase of fade-out of subjectivity in the market analysis, and we are going to draw some auxiliary line of its history from the previous chapter, since those who asserted this model did not take much care of the history of its development.

Before going into this detail, it would be useful to put a reservation that disequilibrium had been formulated and discussed much in the field of economic history, not the history of economics, especially after the Great Depression of 1929, using the concept of ‘bubble’ of speculation¹⁵. Rather exceptionally, H. P. Minsky took this idea over and made contributions to economic theory around the same time as the efficient market model arose, in his writing of interpretation of Keynes. Since this contribution has explicit analysis of expectation and speculation, we briefly sketched Minsky’s idea in the first section.

3-1. Keynes a la Minsky?: towards an analysis of speculation

According to Minsky, Keynesian theory rests on a speculative-financial paradigm with sophisticated view about uncertainty¹⁶. Minsky mainly analyzed the representative work of Keynes,

¹³ Ibid, p. 23.

¹⁴ Morgenstern, at first glance, also seemed to give up his research interests in the collaboration with von Neumann in the 1940s and in its outcome, *The Theory of Games and Economic Behavior* published in 1944, where the authors decided themselves not to deal explicitly with the case of gambling. But in fact, Morgenstern did not lose his own interest and expressed it in his later works, such as in those which dealt with stock markets, especially with the focus on the international comparison and mutual influences.

¹⁵ For example, see several contributions by C. Kindleburger.

¹⁶ Minsky 1975, pp. 57- 58.

The General Theory of 1936, but saw some consistency since early writings like *A Treatise on Probability* of 1921. What attracts our attention here is the statements concerning subjectivity and objectivity and we cannot dwell too deeply on the issue of how far Minsky's interpretation of Keynes was faithful to the original intention of Keynes or not. So we would just check the main idea of 'Keynes a la Minsky'.

In order to introduce the concept of speculation, Minsky introduced two kinds of subjectivity around Keynes' concept of probability shown in *A Treatise on Probability*: The first was the case where 'no precise numerical value can be objectively assigned' but decisions need to be made, as if there were such a value, which was called, 'subjective probabilities'¹⁷. Such subjective probabilities were inevitably assigned on some insufficient knowledge and said to be very changeable.

Then there was another kind of subjectivity, which reminds us of Morgenstern's idea of subjectivity.

'This is the weight or confidence with which the assigned probability is used as a guide to action or decision. ... Keynes viewed an accretion of evidence as increasing the weight or confidence attached to a proposition. But in the context of the economic problems discussed in *The General Theory* of decision-making for the future by households, firms, and banks, events, such as crises, can radically diminish the confidence with which views of the world are held'¹⁸.

Minsky then went on to say that this dual-decision scheme was not necessarily important and that what were essential here were rather elements of time and uncertainty, and a sophisticated philosophical framework of decision on the basis of imperfect knowledge. This assertion was further paraphrased that Keynes 'held that there was no way of replacing this uncertainty with certainty equivalents'¹⁹, and that the probabilistic propositions and the weight change in some consistent manner. It means that the weight or the second type of subjectivity cannot be represented by any fixed amount of value, just as the very idea of insurance would do. And it further implies that the second type of subjectivity can never be the same thing as the objective frame of reference of the first type.

According to Minsky, this 'decision-making under uncertainty' was the central theme of *The General Theory* of Keynes and speculation came to the center of the analysis. At this point, Keynes's analysis became different from Morgenstern's mere mentioning of this concept and it was also separated from the analysis of subjectivity. And because of this uncertainty and changeability here, people rely on money —value in itself, Keynes claimed.

'... the world is an uncertain world... Furthermore, this is a capitalist world in which units have portfolios —assets and liabilities which embody yesterday's views and both earn and commit today's and tomorrow's receipts. In a world with uncertainty, portfolios are of necessity speculative. The demand for money as a store of value exists because in a world where speculation cannot be avoided —where to decide is to place a bet — money is not barren. ... money in our world has attributes of an insurance policy, in that possession of money protects against the repercussions of particular undesirable contingencies'²⁰.

In this connection, we mention Keynes' conception of expectation, which had been Keynes' variant of subjectivity and which was not explicitly discussed in Minsky's interpretation. In a chapter where Keynes discussed the concept of long-term expectation, he listed up several factors that created problems for securing sufficient investment. This is partly a very famous part

¹⁷ Minsky 1975, pp. 65.

¹⁸ *Ibid.*, p. 65.

¹⁹ *Ibid.*, p. 66.

²⁰ *Ibid.*, p. 77.

where the example of so-called beauty contest or prettiest faces was explained. With these examples, Keynes asserted that professional investment with the best genuine long-term expectation was not necessarily successful and these considerations should be within the sight of economists. He put this explanation with the view that ‘the risk of the predominance of speculation does increase’, where speculation meant ‘the activity of forecasting the psychology of the market’, and enterprise was ‘for the activity of forecasting the prospective yield of assets over their whole life’²¹. By the way, it also has some relation to Knight’s idea we discussed in the previous part that the value system in a society concerning expectation had to take social psychology in consideration.

Anyway, Keynes drew a strong claim from here that,

‘Speculators may do no harm as bubbles on a steady stream of enterprise. But the position is serious when enterprise becomes the bubble on a whirlpool of speculation. When the capital development of a country becomes a by-product of the activities of a casino, the job is likely to be ill-done’²².

Though this part had much been quoted in Keynes literatures, including Minsky’s, it was not until recently that it was understood in line with Minsky’s perspective. This was mainly because Minsky’s writings drew much attention only recently.

3-2. Fade-out of the subjectivity and of history of economics?

Now we look into the idea of efficient market model. As a common understanding, it was said to have explicitly been formulated by a survey article by E. F. Fama in 1970, which summarized the presentation at a joint session with Econometric Society, in an annual Meeting of the American Finance Association at the end of 1969. Fama reviewed the theoretical and empirical literature on the efficient market model, in order mainly to examine ‘the adjustment of security prices to relevant information subsets’²³. Here the conducting figure seems to be the price that adjusts itself to the market conditions. But we can see that the main idea of the model was shown at the beginning of the article as follows.

‘The primary role of the capital market is allocation of ownership of the economy’s capital stock. In general terms, the ideal is a market in which prices provide accurate signals for resource allocation: that is, a market in which firms can make production-investment decisions, and investors can choose among securities that represent ownership of firms’ activities A market in which prices always “fully reflect” available information is called “efficient”²⁴.

In these sentences, the idea was distinctly expressed that capital market was the one to efficiently allocate the ownership of some society and that the keystone of this efficiency was whether prices “fully reflect” available information. The main interested figure was the owners of the capitals (that is, investors) rather than price itself, as Keynes more directly considered, even though they were not appearing here in front of the analysis.

Fama, with some reservation that efficiency can be said to have been attained if ‘sufficient numbers of investors have ready access to available information’²⁵, introduced several conditions of the theory to test this efficiency empirically: expected return or fair game model, the submartingale model, the random walk, respectively. After brief explanation of these conditions, he entered into the survey of empirical research as the latter part, with types of weak, semi-strong

²¹ Keynes 1936/ 2008, p. 103.

²² Ibid..

²³ Fama 1970, p. 383.

²⁴ Ibid.

²⁵ Ibid., p. 388..

and strong form tests. But we check how the concept of subjectivity was hidden in these three conditions.

The first condition, expected return model meant a rather weak assumption that the conditions of market equilibrium can ‘somehow’ be stated in terms of expected returns, which was looser than a more rigorous theoretical meaning of ‘full reflection’ of information by market prices. As Fama admitted that, in the concept of expected returns, the purely mathematical concept of expected value seemed to get a higher status here than would be necessary, it meant that subjectivity in the idea of expected returns was ‘somehow’ excluded from this model. This model presumed that the investors would expect in advance the very returns which would lead to the market equilibrium.

Then the second condition, the sub-martingale model, ‘is to say nothing more than that the expected value of next period’s price, as projected on the basis of the information, is equal or greater than the current price’²⁶. Fama seemed to treat this as self-evident condition, giving one footnote that the holding of ‘one security and cash’ could be more profitable than ‘buy-and-hold’ of one security since the former could better avoid eventual losses, and that the second condition did not exclude this possibility. Even though there should be empirical possibilities that expected returns be negative, he did not find necessity to re-consider this theoretical condition.

The third condition, the random walk model, implied, that successive price changes – at least successive one-period returns -- were independent and identically distributed. In a strong assumption it would mean that the distribution of expected returns on security be constant, independent of the available information. And Fama argued that it was best to regard this third condition as an extension of the first, which meant that the price change would be random but economic agents’ expectation would correspond to the market in the long run and that markets could be seen to work automatically and efficiently. He added that ‘... initial large change at least represents an unbiased adjustment to the ultimate price effects of information, and this is sufficient for the expected return efficient markets model.’²⁷ This is of course in line with the assumptions of rational expectations²⁸. Hence subjectivity did not have much meaning for efficient market model, neither in the random walk model nor in the assumptions of expectation as a definition, though it could be possible that subjectivity has some influence on the information treated as given, in making random walk and in forming expectations.

Here we would like to add one point of attention: Fama did not pay much attention to the pre-history of the development of this model or made a different narrative from the common history of economic thoughts. He mentioned such names as Kendall, Osbourne, Cootner, or Louis Bachelier as their precursors to have contributed to random walk model of stock markets, but the contribution was rather in empirical and technical senses. In the references, we certainly find an article by Morgenstern together with Granger, but it was not used explicitly. In order to fill this gap, we now consult with another contribution to random walk model made by B. Malkiel around the same time.

3-3. Keynes and Morgenstern a la Malkiel: The Castle-in-the-Air Theory

When Fama made a basic contribution to the definition of market efficiency theory and Minsky was reassessing Keynes’s *The General Theory*, B. G. Malkiel published his best-seller book, *Random Walk Down Wall Street* (1973), with which the concept of ‘random walk’ became

²⁶ Ibid., p. 386.

²⁷ Fama 1970., p.

²⁸ We can see this connection explicitly in Shiller 1978, which dealt with the rational expectation theories in a critical perspective.

very popular in the field of market analysis, not only for professional economists but also for the investing public. Seen from theoretical and empirical perspectives, he approximately followed the contributions of Fama, as has become clear in his another article of the same period²⁹. But Malkiel made his own contribution to the development of the theory: In his writings, we can see more clearly the connection to the history of economic thoughts and to the concept of subjectivity. Further Malkiel showed a more clear direction that the analysis of subjectivity in the stock markets (including negative judgment though) was for the investors, and also sneaked some ethical implication in his analysis.

Malkiel explained at the beginning of this book, a random walk is one, '...in which future steps or directions cannot be predicted on the basis of past actions. When the term is applied to the stock market, it means that short-run changes in stock prices cannot be predicted. ... Taken to its logical extreme, it means that a blindfolded monkey throwing darts at a newspaper's financial pages could select a portfolio that would do just as well as one carefully selected by the experts'³⁰.

This humorous tone like this example of monkey' darts seemed to be strategically put, as this book was directed to the experts of finance and to general readers who want to enter into the world of portfolio from the side of an academic scholar who himself does well with it, how to do. This stance has been taken over until nowadays by those who have similar career as Malkiel. Since this time, in short, the random walk, which had originally presumed the limit of prediction as a legacy of Morgenstern, became in line with the efficient functioning of market and hence at variance with irrationality, and this implied the separation of the concept of subjectivity from random walk theory.

Actually, Malkiel gave a short survey of the history of economic theories around the concept of random walk model: he made the theoretical contrast explicit between the 'Firm Foundations' and 'Castles in the Air', the former of which argued that investment instrument has 'firm anchor of something called intrinsic value'³¹, while the latter opposed to this kind of idea. He mainly mentioned Keynes as the representative of the second one of Castles-in-the-Air, with the very example of beauty contest.

'Keynes described the playing of the stock market...: It is analogous to entering a newspaper beauty-judging contest... The smart player recognizes that personal criteria of beauty are irrelevant in determining the contest winner. A better strategy is to select those faces the other players are likely to fancy. ... The newspaper-contest analogy represents the ultimate form of the castle-in-the-air theory of price determination. An investment is worth a certain price to a buyer because she expects to sell it to someone else at a higher price. The investment, in other words, holds itself up by its own bootstraps'³².

What Keynes had described as the instability of expectations, became an example of good opportunity for speculation. In this connection, Malkiel classified Morgenstern as the early leader together with Keynes, as well as with Shiller who used mass (crowd) psychology in the 'so-called behavioral theories of the stock market'. Though it was an incorrect and rough understanding of Morgenstern by Malkiel from our perspective, it is remarkable that he made a grouping of theorists who took consideration of psychological or subjective factors together. It was classified as those who concentrated on irrational and illogical factors. As was written as follows, 'the psychological' was placed against 'the logical' by Malkiel.

²⁹ Malkiel 2003. This is an article with which Malkiel rewrote his book in a more academic way.

³⁰ Malkiel 1973/ 2003, p. 24.

³¹ Malkiel 1973/ 2003, p. 29.

³² *Ibid*, pp. 31-32.

‘... there have always been both logical and psychological theories of stock prices, and earlier generations of economists, such as John Maynard Keynes, stressed the importance of the fallibility of human decision making. The efficient-market theory was developed on the assumption that market participants are highly rational. But particularly during the 1990s and early 2000s, psychologists such as Daniel Kahneman and financial economists in increasing numbers have argued that the decisions of many investors are strongly influenced by behavioral characteristics such as overconfidence, overreaction, attraction to fashions and fads, and even hubris. ...³³’

It is evident in this quotation that subjectivity in the sense of irrationality, shown in overconfidence, overreaction, attraction to superficial things like fashions, fads, or hubris, are important in deciding stock prices, even though those kinds of prices are ‘fallible’ in comparison to rationality. Malkiel attributed this subjectivity to the dependent decision of the mass, as Keynes typically showed in his example of beauty contest above. But thinking back to the thoughts of precursors in the 1930s, subjectivity itself contains individual factors like overconfidence etc., so it cannot be identified with irrationality of the mass, and should be seen as a different sort of rationality of individuals, independent of the mass. But this reasoning was in fact not unique in Malkiel but seemed rather to be shared by theorists of efficient market models, as well as those of behavioral science like Shiller. In this sense, the argument of subjectivity potentially went back to a simpler stage in this very phase of fade-out.

Further, it deserves attention that Malkiel distinguished speculation from investment. According to him, what he clarifies in his book was the activity of investing, in the sense of ‘a method of purchasing assets to gain profit in the form of reasonably predictable income (dividends, interest or rentals) and/ or appreciation over the long term’³⁴. In his classification, investment is a rational, logical and reasonable activity and is different from that of speculating, which is psychological, irrational and more directly, bad. He almost reproached speculative bubbles that they were manipulated by savvy institutions and pros and that too many investors were lazy and careless. For Malkiel, even though he did not use the very term, subjectivity was at the heart of this nasty phenomenon. For him, the more cautious investors become, the more predictable stock markets become, and hence the more efficient, which was the ‘good’ functioning of investment. This was, so to speak, an ethical version of efficient market model.

4. Resurgence of Subjectivity

4-1. Shiller: From Irrational exuberance to Animal Spirit

The writings of Shiller appeared as a symbol of just another side of the same coin as Malkiel’s, but with explicit usage of psychological factors. Shiller posed the same questions as did theorists of efficient market models, whether stock market prices rightly convey all the necessary information and answered negatively. In a review article with the very title ‘from efficient markets theory to behavioral finance’ in 2003, Shiller remembered that the efficient markets theory reached at its ‘height of dominance in academic circles around the 1970s using rational expectations, with Merton, Lucas, etc.. But then Shiller went on to discuss that the volatility anomaly was so deep that many theoretical attempts appeared in the 1980s to revise the theory and still to show that some inefficiency of the stock market did not damage the theory as a whole. Shiller concluded that,

³³ Malkiel 1973/ 2003, p. 243.

³⁴ Malkiel 1973/ 2003., p. 26.

‘... the level of volatility of the overall stock market cannot be well explained with any variant of the efficient markets model in which stock prices are formed by looking at the present discounted value of future returns. There are many ways to tinker with the discount rates in the present value formulas...’³⁵.

This was the starting point for ‘academic discussion’ of economic theorists in the 1990s to have shifted away from econometric analyses of time series toward ‘developing models of human psychology as it relates to financial markets’³⁶. From our point of view, it was the resurgence of subjectivity in the sense of psychology. The starting point of behavioral science and of Shiller’s own contribution was opened up by the same dichotomy as efficient market theories, that is, the logical or the psychological. Shiller just shifted his emphasis on the other pole from that of efficient market theorists, and claimed that the volatility of stock markets exceeded the logical expectations so that the psychological --a different kind of universal character from logical universality- factor should become the only possible tool for analysis. Here the consideration for the empirical deviation was ‘a priori’ excluded in the assumption of rational expectation and was replaced by ‘the psychological’, supported by cognitive psychology. Empirically refuting outcomes to the efficiency of stock markets did hence not negate the model itself but rather let theorists turn away from the previous type and motivated them towards some other type of model. This kind of attitude could be seen as science-oriented or as the belief that economics should be a branch of science.

Shiller placed his own best-seller book, *Irrational Exuberance* published in 2000, as a following attempt of very old ‘feedback models’ which dated back to some book of 1637 (as was explained as the year of the peak of the tulip-mania) by anonymous author and which had never got any academic fame since then. The feedback model was defined as the mechanism, ‘when speculative prices go up, creating successes for some investors, this may attract public attention, promote word-of-mouth enthusiasm, and heighten expectations for further price increases. ... The feedback that propelled the bubble carries the seeds of its own destruction’³⁷. This was evidently another variant of Keynes’ expectation, dependent of others’ expectation shown in the example of beauty-contest. In this way, Shiller combined the concept of expectations with that of bubble explicitly, analyzed until then mostly in the field of economic history only. ‘... human interactions, the essential cause of speculative bubbles, appear to recur across centuries and across countries: they reflect fundamental parameters of human behavior’³⁸.

In this connection, Shiller analyzed the Ponzi scheme which functioned as a further evidence to support feedback model. He explained that the speculative bubbles of real world stock markets resembled Ponzi schemes and that the success of Ponzi schemes implied the success of speculative bubbles. Indeed, this was the essence of ‘irrational exuberance’ which was amplified by the price rise itself, even though Shiller went on to the discussion of media or of cultural change more generally. By the way, though Shiller did not mention Minsky in his book or articles, the usage of the term Ponzi dated back to Minsky’s analysis of speculation³⁹. It was defined to be some finance ‘in which the funds to pay interest and dividends are obtained by borrowing’⁴⁰ and was classified in the final step following the first, hedge financing, and the second,

³⁵ Shiller 2003, p. 90.

³⁶ Shiller 2003, p. 90.

³⁷ Shiller 2003, p. 91.

³⁸ *Ibid.*, p. 94.

³⁹ Remembering that the usage of the term was criticized by elder economic theorists, Minsky explained, ‘The use of the term Ponzi for financing relations which involve the capitalization of interest was originally a joke that became a fixture in my way of describing things’ (Minsky 1986/ 2008., p. 225.).

⁴⁰ *Ibid.*.

speculative financing⁴¹. Though Shiller's usage was not very rigorous in comparison to Minsky's formulation, Shiller embodied himself as the theoretical mixture of Morgenstern type of the Austrians and of Minsky type of Keynesian. And from our viewpoint of subjectivity, this concept re-appeared in the front stage of economic theories with Shiller, appealing its universal character as a scientific approach, while resorting also to a more general public than narrow academic circles, just like Malkiel did.

4-2. The Intellectual Context: Support for 'the Ownership Society'

Following the historical transition of the narratives around subjectivity in this paper, we have confirmed that Shiller's reasoning was neither novel nor original, but rather some kind of resurgence of rather old ideas of subjectivity in the sense of Morgenstern-Keynes-a-la-Minsky type of irrationality and instability in stock markets. It was certainly better equipped with the conceptual devise for speculation in the capital market and more distinctly directed towards investors than those precursors had done, taking advantage of learning from ideas and assumptions of efficient market theorists including Malkiel. Shiller used the same dichotomy as these theorists did and regarded the psychological element as universal to all mankind, indifferent to the social status or to the quantity of property. In that sense, Shiller provided scientific character for his reasoning. It is hence almost no wonder that he, in a more recent book collaborating with Akerlof, went on to the analysis of animal spirit, which pointed out another psychological and universal nature of mankind for speculation or for economic activities in general.

As we mentioned at the beginning, Shiller rather warned the dangerous aspect of irrational exuberance or of this kind of subjectivity, but he described it as a 'natural' psychological trait as to follow the natural law. Hence, it functioned to persuade that we could not avoid using this character and falling into the mechanism of feedback; which meant that he endorsed the inevitability of bubbles in the phase of financialization since the 1980s and that he gave the readers an epistemological hindrance, not to see the problems of globalization structurally. So, the resurgence of subjectivity in market analysis, not only in the case of Shiller but more generally, repeatedly supports 'the ownership society' as a result.

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⁴¹ Minsky 1986/ 2008., pp. 371- 379.

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