

# **Monetary Equilibrium under Financial Capitalism: Capital Theories and Finance Capital <sup>1)</sup>**

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## **Introduction**

There are two sides to globalization; one in the context of the real economy and the other in the context of financial economy. Nowadays, financial transactions are being so actively executed both at home and abroad that they far exceed real transactions in terms of their volume. It should be noted that the real side of globalization is led by the financial side of it. While higher levels of capital activities in search of price differentials between the buying and selling of various assets, namely capital gains, call on companies that use real capital to raise capital effectiveness and reduce costs, institutional reforms are required so that the possibility for the sale of all assets that generate cash flow, in other words “securitization,” can be realized. In contemporary capitalism, capital activities within such financial markets play a leading role in selecting and determining investment assets and institutions.

As credit money gradually became a major means of settlement from the late 19th century to the early 20th century, the remodeling of economics started on the premise of credit money or the development of the credit system. Such movements not only forced a rethinking of the concept of capital, but also changed the equilibrium concept. As a result, the monetary equilibrium replaced the real equilibrium, which means that

the equilibrium for rates of return on all kinds of capital, including financial assets, emerged as the main theme in economics. Economics in the 20th century, with Johan Gustaf Knut Wicksell as a harbinger and Rudolf Hilferding and John Maynard Keynes among the leading figures, developed over the capital concept and the monetary equilibrium. Amid these arguments, Hilferding conceptualized new capital activities by means of financial assets as “finance capital.” Meanwhile, as Keynes captured the economy that was virtually led by finance capital within the framework of a monetary equilibrium he advocated that the volume of output/employment should be adjusted to the equilibrium of rates of return on various kinds of capital in financial markets, and ultimately reversed the classical causal relationship between the real sector and the financial sector.

After World War II, the monetary equilibrium became an important component of economics as seen in the IS-LM model. And yet the Keynesians and the Neo-Walrasians analyzed relations between the real sector and the financial sector based on an analysis of the real economy, differing from Keynes’ intentions. As a result, they could not identify the capital activities that are playing a leading role in the contemporary economy and had no option but to make ad hoc assumptions on asset evaluation, investment decisions and financial systems. Such difficulties in systematic analyses were also witnessed in the Post-Keynesian school and the Marxist school as opposed to the mainstream. The contemporary economy cannot be systematically analyzed in such a way as to label self-propagating capital activities in financial markets simply as “speculation” and/or “bubbles” based on the classical concept of capital.

This paper redefines the concept of finance capital and the analysis of monetary equilibrium, each of which is essential to understanding relations between the real sector and the financial sector in the modern period, and then, based on the subsequent framework, critically considers post-war economics. Through this work, the intention is to explore the possibility of integrating the Post-Keynesian school’s

analysis of monetary equilibrium and the Marxist school's analysis of the credit system for the purpose of systematically analyzing the contemporary economy.

## **I. Rethinking of the Capital Concept**

Capital activities in search of price differentials between the buying and selling of various kinds of assets or capital, namely capital gains, play a leading role in the modern period. Hedge funds and other investors evaluate and price various kinds of capital, and then invest in and/or lend to capital owners who can live up to such evaluations and pricing. Nowadays, share prices and credit ratings have been affecting overall corporate management ranging not only from investment funds, but also from operating funds and the financing of selling and advertising expenses to the employment policy-related area, such as stock options and 401K. In addition, even in-kind capital such as fixed equipment or work in process is now required to be evaluated in accordance with the same standards as financial assets; in other words, such capital must be subject to mark-to-market accounting practices. Financial assets in themselves are no more than credit obligations or debt obligations without any substance of value, even if they may have potential control over real goods. As indicated by the notion of fictitious capital, such an existential form of capital without any substance of value is nothing new. What is new is that capital activities conducted through the means of capital without any substance of value are playing a leading role in the contemporary economy.

How can we position capital activities using financial assets as a means of multiplication from the viewpoint of the conventional capital concept? Traditionally, production capital, commodity capital, and monetary capital have been recognized as existential forms of capital. Meanwhile, industrial capital, commercial capital, and interest-bearing capital have been recognized as activity forms of capital. Needless to say, financial assets are neither production capital nor commodity capital. Besides, it is problematic if financial assets are perceived as part of the same concept as

monetary capital, as is obvious from the fact that cash and financial assets such as bank deposits, equity and bonds show different trends in various phases of the economic cycle. As for activity forms of capital, capital activities by means of financial assets also differ from those by means of industrial capital, commercial capital and interest-bearing capital. If capital activities by means of financial assets are called finance capital in accordance with Hilferding's definition, finance capital is different from industrial capital and commercial capital in that the former does not use real capital as a means of multiplication. It surely resembles interest-bearing capital, but there is a marked difference as follows: while revenues from interest-bearing capital are part of the results of production processes, revenues from finance capital are not directly related to production processes. In an extreme case, finance capital can realize multiplication only if financial assets are held.

Those who take the stance of adhering to the traditional concept of capital, not perceiving financial assets as a unique form of capital, and not recognizing multiplication activities by means of financial assets as a unique activity form of capital, cannot identify capital activities that play a leading role in the contemporary economy. As a result, it is difficult for them to carry out any systematic analysis. This is because major variables for capital valuations and investment decisions, etc., differ depending on what kind of multiplication activity the relevant capital is to be engaged in. Equipment embodying the most advanced technology is often a high-priority means of multiplication for industrial capital. And yet it is no more than high-risk capital with low liquidity for finance capital under a credit crunch.

## **II. What is Finance capital?**

### **1. Recognition of Finance capital by Hilferding and Keynes**

#### **(1) Concept of Finance capital by Hilferding**

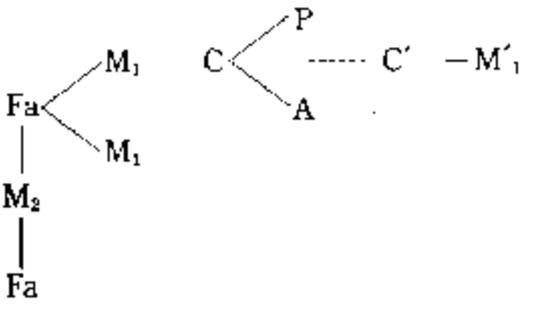
Hilferding was one of those who pioneered the conceptualization of capital activities by means of financial assets. He puzzled over the problem of how to

position capital activities by means of equity or financial assets as opposed to those by means of industrial capital, commercial capital and interest-bearing capital.

The characteristics of Hilferding's concept of finance capital are as follows: Firstly, capital gains resulting from new equity issuance have been perceived as founders' profits, and financial assets (equity) including founders' profits have been defined as a fictitious capital, which has been distinguished from production capital, commodity capital and monetary capital, and has been positioned as a new form of capital. Secondly, capital activities by means of the fictitious of capital have been defined as finance capital and this capital has been distinguished from industrial capital, commercial capital and interest-bearing capital, and has been positioned as a new activity form of capital. Thirdly, founders' profits, which are categorized as revenues from finance capital, have been perceived as a unique source of revenues that are never offset by losses in any other form of capital<sup>2)</sup>.

Hilferding has depicted the activity form of finance capital with the above-mentioned characteristics as shown in Figure 1. However, this concept of finance capital has had the following problems: (1) with the focus on equity issuance, Hilferding perceived the acquisition of capital gains as the acquisition of founders' profits. It is true that the acquisition of capital gains is recognized in the issuance market. However, such a perception is problematic given the fact that the acquisition of capital gains from security transactions in the secondary market has been of growing importance in the wake of the development of the securities market. (2) In accordance with his theory, it has become a constituent element necessary for the activity of finance capital that money obtained as any founder's profit is supposed to be collected in banks via which the money is supposed to be lent to industrial capital, while investors other than bankers are assumed to be satisfied with interest on bank deposits. As a result, his theory has eliminated the possibility for finance capital to perform any independent activity with regard to interest-bearing capital directly, other than via the banks. (3) Hilferding introduced the concept of "social circulation value"

based on the premises that money obtained as any founder's profit is to be lent as loan capital to production processes and that metal money cannot be eliminated in spite of the diffusion of paper money. In this way, he emphatically argued that an increase in money should have its own value. This argument was intended to ascertain a value source for founders' profits. However, his perception that founders' profits, namely capital gains, have substance of value is problematic in that it too readily links money multiplication of finance capital and the creation of surplus value since it pays little attention to the fact that capital gains are locked in only after they are exchanged for real goods.



- Notes: 1) This is a simplified "circulation diagram" of finance capital, of which the original is shown in Kin-yu Shihon-ron (the Japanese translation of Finance capital Theory), Hilferding, Iwanami Library of Classics (Iwanami Bunko), 1982 (Chapter 7, p. 175)
- 2) Each symbol and its meaning are as follows:
- Fa: Financial assets (equity or shares), M: Monetary capital, C: Commodity capital, P: Production capital, and A: Wage labor

Figure 1 Hilferding's Finance capital Circulation

Hilferding could not necessarily conceptualize the activity form of finance capital in genuine terms. The following two points have particularly impeded derivation of the macroeconomic implication that finance capital is to play a leading role in the economy: (1) finance capital has not been conceptualized in such a way as to make it independent from banks; and (2) founders' profits have been too quickly linked with a value source.

## **(2) Recognition of Finance capital by Keynes**

It is in Keynes' General Theory that relations between the rate of return on real capital and the rate of return on financial assets were explicitly discussed for the first time. Keynes' argument was presented as criticism of Wicksell's perception of relations between the natural interest rate (the rate of return on real capital) and the monetary (market) interest rate.

Wicksell argued that it is not change in the quantity of money but fluctuations in the market interest rate as opposed to the natural interest rate that causes changes in price levels in the credit money system. And yet his perception of relations between the real sector and the financial sector remained within real economic analysis in the sense that money, credit and financial assets were supposed to have no influence on the natural interest rate. Keynes, who was dissatisfied with Wicksell's perception, was destined to abandon the role of the natural interest rate in Wicksell's theory and the capital concept as its basis in the course from Monetary Theory to General Theory.

As Kregel had long been arguing, Keynes' capital theory and liquidity preference theory both date back to his early work on the interest parity theorem. According to this theorem, futures premiums or discounts in relation to a certain currency in the foreign exchange market are nothing more or less than the result of investors'

preferences for the specific currency-denominated deposits. Keynes' argument concerning own rates of interest in Chapter 17 of General Theory has generalized this interest parity theorem so that it can be applied to rates of return on all kinds of capital.

To generalize the framework of the interest parity theorem so as to apply it to rates of return on all kinds of capital, Keynes paid attention to Piero Sraffa's broader analysis of the futures market with regard to the determination of commodity interest rates on durable assets. Keynes interpreted an interest rate as "an excess percentile of the currency amount of a given forward contract over the 'real' price or the so-called cash price of the relevant forward contract" and described the commodity interest rate as the own rate of interest<sup>3</sup>).

The own rate of interest is defined either as the revenue expressed in a given commodity when the revenue is earned from lending the said commodity or as the rate of the quantity of a given commodity purchasable on the basis of a forward contract to the quantity of the same commodity given on the basis of a spot contract. The same calculation can be performed even if there is no forward market. Any capital revenue is perceived as the differential between the futures price and the spot price, and is defined by the following four factors; the increase in output ( $q$ ), the cost of carry ( $C$ ), the liquidity premium ( $L$ ), and an adjustment factor ( $a$ ). In this theory, the adjustment factor is meant to be an increase or a decrease in the futures price in comparison to the spot price, namely the capital gain (or loss).

The argument of the own rate of interest indicates that Keynes regarded all means that generate capital gains (or losses) as capital. It is true that the defining factors of the own rate of interest include a net increase in output, the cost of carry as the cost to maintain capital, and the interest on loan capital. In addition, the user's cost (depreciation) is also taken into account when evaluating the relevant asset, although it is latent. However, there are no distinctions among the listed earning sources. They have been positioned as paratactic factors that lead to capital gains (or losses), while

any technical impediments, climatic or labor issues, etc., have not been taken into account. The recognition of capital revenues through differentials between futures prices and spot prices indicates that Keynes attempted to evaluate capital profitability from the viewpoint of investors who seek capital gains. In this sense, Keynes virtually assumed that the capital that determines investment choices is the same capital that executes the multiplication activity in search of capital gains, namely finance capital. Keynes' approach has enabled the formulation of a monetary equilibrium on the basis of monetary economic analysis and thus presented a new view on relations between the real sector and the financial sector, which differs from the viewpoints of the classical school, although there are some problems in his approach.

## **2. Capital Forms and Activity Forms of Capital**

The above discussion has revealed the effectiveness of an approach that derives value sources and other macroeconomic implications once finance capital has been conceptualized as one activity form of capital that aims to acquire capital gains in association with other activity forms of capital. The following are redefinitions of capital forms and activity forms of capital, including financial assets and finance capital, by cutting off relationships with the value sources.

### **(1) Capital Forms and Financial Assets**

There are four existential forms of capital: production capital, commodity capital, monetary capital, and financial assets (see Table 1). It is necessary to distinguish between monetary capital and financial assets as forms of capital that are different from each other. As previously mentioned, commodity money or other money such as central bank notes, namely cash, demonstrates different trends from those of financial assets such as bank deposits, equity and bonds, in the wake of the phases of the economic cycle and/or changes in confidence in the overall financial markets. During a recession or when market confidence is declining, non-settlement financial assets in

particular show a decreasing trend, while cash occasionally demonstrates an increasing trend even in such a period. Things that show different trends cannot be interpreted within the same concept.

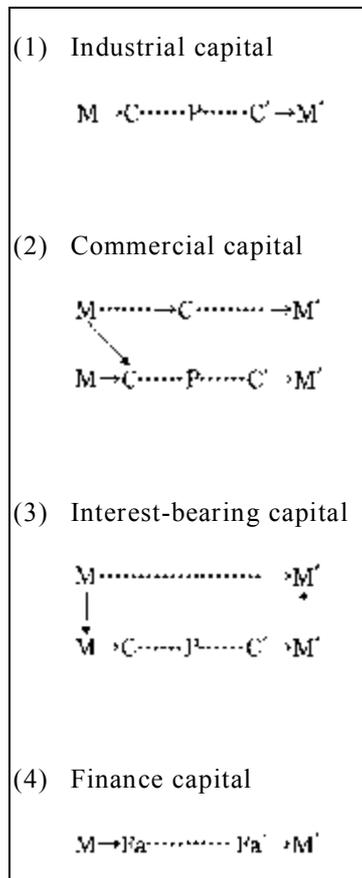
Table 1 Classification of Forms of Capital

M: Monetary capital
P: Production capital
C: Commodity capital
Fa: Financial assets

**(2) Activity Forms of Capital and Finance capital**

There are roughly four activity forms of capital; industrial capital, commercial capital, interest-bearing capital, and finance capital (see Table 2). Finance capital is the activity form of capital in which the capital form called financial assets is used as a means of multiplication. Industrial capital and commercial capital execute multiplication activities by means of production capital and commodity capital, respectively. Meanwhile, interest-bearing capital and finance capital are similar in that both of them execute multiplication activities by means of financial assets. However, they are different in that revenues from interest-bearing capital are part of monetary capital that has achieved results from production processes, while revenues from finance capital are not directly related to the results of production processes.

Table 2 Classification of Activity Forms of Capital



The difference with Hilferding's view is that the multiplication of finance capital is not conditioned on an endorsement of its value. This means that a certain amount of value to be obtained on the basis of a given activity of finance capital is determined post hoc; to put it concretely, the value amount should be determined when a certain financial asset is liquidated and converted into money in the case of commodity money, or when a portion of the financial asset is exchanged for real goods in the commodity market in the case of non-commodity money. Most financial assets, of course, increase or decrease in tandem with liabilities. Accordingly, the earning source for all finance capital is nothing more or less than the increase in net assets. However, individual finance capital does not always seek such an increase in net assets. Historically, each form of finance capital acting in search of capital gains has increased both financial assets and liabilities, with occasional losses, and ultimately increased net assets as a whole as seen in rising share prices. It is also each activity of

such individual finance capital that evaluates and establishes the major determining variables of economic activities.

The activity form of capital called “finance capital” can be derived from the premise of financial assets. And yet historical conditions are necessary in order to carry out capital activities by means of financial assets that are self-sustaining and to make the conceptualization required <sup>4)</sup>. In this sense, finance capital is a historical concept.

### **III. Monetary Equilibrium and Finance capital**

#### **1. Significance of the Concept of Monetary Equilibrium**

When finance capital is further added to the list of forms of capital in addition to production capital, commodity capital and monetary capital, real capital and financial assets become alternative earning assets for capital activities. Therefore, when the long-term equilibrium needs to be dealt with, monetary equilibrium in place of the real equilibrium needs to be considered. The concept of monetary equilibrium, which was introduced by Karl Gunnar Myrdal to express the condition in which the market interest rate is equal to the natural interest rate, can be applied to every analysis with regard to the relationship between real capital and financial assets in terms of their rates of return. However, when it comes to determining the long-term equilibrium, the monetary equilibrium has a different meaning with respect to real economic analysis that emphasizes real forces and a monetary economic analysis that emphasizes monetary forces.

The monetary equilibrium does not have much importance in a real economic analysis, since the long-term equilibrium is determined solely by real forces and thus the monetary equilibrium is deemed to be a temporary phenomenon with little significance. In contrast, the monetary equilibrium has a definite significance in monetary economic analysis since monetary forces can determine the state of long-term equilibrium. The monetary equilibrium started to be discussed on the basis of monetary economic analysis when Keynes explained the determining factors of

interest rates on the basis of liquidity preference, cutting off the real sector.

By applying the concept of monetary equilibrium it is possible to analyze economic activities in which both real capital and financial assets play a leading role. Furthermore, when the monetary equilibrium is considered as a condition of determining the long-term equilibrium, the relationship between the real sector and the financial sector show unique causalities, differing from the classical school, the Marxist school, and the neoclassical school.

## **2. Monetary Equilibrium under Financial Capitalism**

### **(1) Marginal Efficiency of Capital and the Monetary Interest Rate**

The rates of return on all kinds of capital should be equal whether they are real capital or financial assets, as long as there is no constraint on investment choices. According to Keynes, the monetary equilibrium consists of the two variables; the monetary interest rate and the marginal efficiency of capital. The rates of return on all types of capital are then defined as being identical to monetary interest rates<sup>5)</sup>. However, these variables have different meanings from Wicksell's perception of the natural interest rate and the market interest rate.

Firstly, the marginal efficiency of capital is a concept to be applied to the monetary economy in which all prices are expressed in the relevant monetary unit, in sharp contrast to Wicksell's perception of the natural interest rate, which cannot be applied to the monetary economy. The marginal efficiency of capital represents the effect of the monetary interest rate over the demand price of capital in relation to the long-term supply price of capital. Keynes abandoned the natural interest rate for form's sake and introduced the marginal efficiency of capital in order to relate the monetary interest rate to the real sector. As a result, the monetary interest rate has taken over the role of the natural interest rate, providing an effective tool to compare rates of return between real capital and financial assets without depending on the various premises of real economic analysis.

Secondly, according to Keynes, the monetary interest rate is not a variable like the natural interest rate, which is directly determined by the rate of return on real capital. The physical productivity of capital continues to play a role in generating earnings, but it does not determine the monetary interest rate. Since the monetary interest rate is the cost of money rent, it is determined by built-in factors such as the power relationships between the lenders and borrowers in financial markets.

When analyzing rates of return on real capital and rates of return on financial assets on a combined basis, the standard rate of return, by which an equalized rate of return on each capital asset converges, is the rate of return at which the cost of carry is the lowest, the liquidity premium is the highest and the adjustment factor is zero; namely, the rate of return at which the profitability will not change over the long run. Only the monetary interest rate (the marginal efficiency of money) resulting from money lending meets these conditions. In Keynes' theory of the monetary equilibrium, the monetary interest rate is deemed to be an exogenous variable that determines the equilibrium level.

When the money interest rate is assumed to be an exogenous variable in relation to the real sector, the expected rate of return on each form of capital in the monetary

equilibrium is destined to move in such a way as to correspond with the monetary interest rate. Therefore, the monetary interest rate determines the monetary equilibrium in that every other level of marginal efficiency is to be adjusted toward the monetary interest rate as the standard rate of return in the long-term equilibrium. At this point in time, the monetary interest rate and the marginal efficiency of capital are in equilibrium through the change in the demand price of capital relative to the long-term supply price of capital.

## **(2) Monetary Equilibrium: Monetary Interest Rate and the Real Sector**

This section explains economic activities in which the monetary interest rate leads to adjustments in the real sector by means of the monetary equilibrium<sup>6)</sup>. The short-term monetary equilibrium requires the following condition to be satisfied:

$$i_m = r_j = a_j + r'_j, \forall j, j = 1, 2, \dots, n$$

$i_m$  represents the monetary interest rate;  $r_j$  represents the marginal efficiency of capital; and  $r'_j$  represents the own rate of interest of  $j$ -goods, namely the (own) marginal efficiency (the expected rate of return at equilibrium).

In the state of long-term equilibrium (steady state), the demand (market) price market that investors supply is equal to the short-term supply price, and the short supply price is equal to the normal price or the long-term supply price. Accordingly, the adjustment factor  $a_j$  is zero for the marginal efficiency for every kind of capital. Therefore, the monetary equilibrium at the long term equilibrium is expressed as follows:

$$i_m = r'_j, \forall j, j = 1, 2, \dots, n$$

Once the long term equilibrium is disturbed, the adjustment factor ( $=a$ ) plays a role

as a price signal in the adjustment process toward the long-term equilibrium.

As the monetary interest rate rises, money lending that generates a monetary interest rate is more likely to generate higher revenues than the purchase of capital assets with low profitability. Therefore, demand for these types of capital will decrease. At this point, the market price of such capital, relative to the marginal efficiency of the capital, will fall as a negative adjustment factor and thereby the equilibrium will be maintained. As a result, in the short run, capital will be held or produced with normal profits only when the supply price exceeds the market price; in other words, capital for which the supply price falls below the market price could only be sold at a loss.

The price of real capital will fall due to the rise in the monetary interest rate, and yet the adjustment process will not be completed. When the market price falls below the long-term supply price, these types of capital will not be generated. For this reason, in the short run, the adjustment process will continue through a situation of declining output. If the decreasing supply due to the adjustment process reverses the downward trend of the market price, the marginal efficiency will rise and the supply will increase. However, if this short-term recovery cannot be observed, the supply price will change in such a way as to correspond to the demand price in the long run, which will result in changes in production conditions. At this point, a monetary equilibrium will be achieved between the monetary interest rate and the rate of return on real capital.

When the adjustment process caused by the change in the monetary interest rate as explained above is understood, it is possible to come to the conclusion that the marginal efficiency of every type of capital will move in such a way as to correspond to the relevant interest rate. When the monetary interest rate is determined as the result of an asset selection led by finance capital, the investment demand for real capital will be specified and thereby the amount of effective demand will be determined. If other conditions remain the same, the output will be determined. In this way, the monetary equilibrium will integrate the real sector and the financial sector

through a determination of the level of effective demand.

In General Theory, Keynes implicitly assumed capital activities for the sake of capital gains, perceived various economic-driving forces, and showed that financial variables such as the monetary interest rate should determine both output and employment. In this way, Keynes reversed the causal relationship between the real sector and the financial sector, which made his analysis of the monetary equilibrium significant. This does not mean, however, that Keynes conceptualized finance capital, and his understanding of the financial architecture remained only partial. In order to ascertain the activities that come under actual asset selection behavior, any analysis of the monetary equilibrium needs to be expanded to address bank behavior and relations with the real sector that is the site of the multiplication of industrial capital, as well as reconsideration of the standard rate of return.

## **Conclusion**

In an economy in which investments in financial assets can become an alternative to real investments, finance capital activities determine the scale of the real sector by evaluating and selecting assets of various kinds of capital. This tendency further intensifies as multiplication activities by finance capital become more activated and financial transactions increase. This is the conclusion derived from the monetary equilibrium analysis under finance capitalism. As long as the purpose of capital activities is the money multiplication, finance capital as one of the forms of capital movement will generate financial assets and financial organizations or institutions in such a way as to make them beneficial for its own multiplication activities, and will activate asset selection activities. In this sense, monetary equilibrium analysis can be an effective framework for analyzing the contemporary economy, but, needless to say, it needs to be further improved to capture the state of the modern era. In such an improvement process, there is room for the Marxist school to make a contribution through its analysis of the credit system, even if there are problems to be overcome in

its methodology and capital concepts.

In a world brought about by capital activities whose purpose is the money multiplication, human and material resources cluster and accumulate at an unprecedented level because a huge amount of financing becomes possible. In contrast to this world, human and material resources that support backlogged financial assets or liabilities cannot help but be wasted and economic turmoil ensue due to the fact that financial instability cannot be avoided. If economic development is not achievable without wasting resources or economic anxiety, it is not possible to be optimistic about the future of humankind. What kind of institutional architecture is required so that we can overcome the current situation? This is another challenging issue to be solved in the finance capital-led world.

#### Notes

- 1) This article is the English version of my “Monetary Equilibrium led by Finance capital: The Post-Keynesian School and the Marxist School in the Analysis of Contemporary Capitalism(Japanese)”(*Kikan Keizai Riron*.Vol.45, No.2, July 2008). Translated in English, I had revised several points of my original article. Also, the importance of reconsideration about the concept of capital suggested by Takuwa(2008).
- 2) “Founder’s profit is neither fraud nor compensation nor reward but a unique economic category.” (Hilferding [1961] p.72)
- 3) Keynes [1936] p.222 (the Japanese translation, p.220)
- 4) Examples include (1) the formation of oligopolies (mobilization of capitalist classes) in the basic sector to maintain the price of commodities relative to money wages, (2) the establishment of the deposit bank system and the formation of the securities market, and (3) the conversion of central bank notes to cash under a planned currency system.
- 5) The author referred to Rogers [1989] Chapters 9 and 10 for Keynes’ concept of the monetary equilibrium.
- 6) For details of the following, please refer to *ibid.*, Chapter 9.

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