Financial Crisis and Post Keynesian Financial Reform

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Abstract

After the global financial crisis, there has been a recurrence of interest in the general concept of Keynesian economics on the part of academics as well as policy makers. However, there have been little practical discussions to implement Keynesian perspectives, especially in the discussions on financial reform in individual countries or international organizations. While Keynes drew attention to the speculative aspect of the financial sector and the effects of financial development on the real economy in his monetary theory of production, the financial reforms being discussed at present focus mainly on measures to reduce risks and to increase safety, and thereby to build more robust financial systems.

This paper attempts to suggest Post Keynesian economic reforms based on Keynes's monetary theory of production, which focuses on not only a sound financial system to contain financial crisis but also a productive financial system to promote investment activity and growth of the whole economy. To achieve these goals, it should involve that the financial structure realigns from capital markets based structure to banks based structure and the assets management of banks is regulated to restrict excessive risk-taking by an authorized supervisory system.

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I. Introduction

The global financial crisis of 2008, brought about the necessity of reforming the existing financial system and even the overall economic order. That is because the current financial crisis revealed that deregulations and innovations in the financial sector ensure neither financial stability nor financial system to function productively. Moreover, the economic order of laissez-faire market competition was shown to be ineffective in securing the sound development of the whole economy and the financial sector, and especially ineffective in maintaining full employment and stability.

Now, it is necessary to reform the existing economic order that is based on the laissez-faire market competition and the existing financial system that is deregulated and speculative so that the financial sector can maintain stability and enable productive activities in the real sector. Keynes already argued that a laissez-faire economy is likely to fall into general unemployment, serious wealth inequality, and unstable economic activities due to uncertainty, time, and the use of money as a store of wealth inherent in capitalist economy. In order to resolve or improve these faults, he suggested several reform measures in the financial sector and real sector.

In this paper, we elaborate reform measures currently needed in the financial sector to prevent the recurrence of a financial crisis and to build a robust financial system, based on Keynes's perspectives. In the next section, we review the discussions about the current debates surrounding the revival of Keynes's economic, comparing it with the essential arguments of Keynes himself. In section III, reform to ensure financial stability is proposed based on the theory of Keynes himself as well as theory developed after Keynes. Section IV analyzes how to organize and manage the financial system and financial orders to promote productive activities in the real sector. Finally, section V summarizes and concludes the above discussions.

II. Revival of Keynes Economics?

After the global financial crisis, many discussions surrounding the cause of the current crisis and the response to it have appeared in the academic and press circles. Among them, what is attracted attention in particular is whether Keyens's economics will revive instead of existing new classical economics. And whether the state intervention and regulation in economic activity that Keynes's economics have instructed becomes a new economic order in place of the principle of laissez-faire market economy is also attracted a considerable attention.

In fact, some Keynesian economists attributed the root of the current financial crisis to deregulation and innovation in the financial sector which were supported by the efficient market hypothesis and to distortion of the incentive structure which came from deregulations

and innovations. Therefore, they argued for more regulations and supervision of financial activities as a response to the financial crisis and more active fiscal stimulus as recovery policy is needed (Stiglitz, 2009; De Long, 2009). Moreover they suggested that economics should return to Keynes's economics instead of the efficient market hypothesis and the real business cycle theory, both of which are based on new classical economics (Krugman, 2009).

Although these arguments are focused on short-term fiscal stimulus, and in accord with Keynes's theory on this point, most of these arguments are not interested in long-term reforms of the economic order, which is essential to Keynes's economics. Most of these theorists argued strongly that active fiscal stimulus is necessary to increase effective demand, although Krugman(2008) argued for restriction on international capital flows, and Stiglitz(2009) called for restructuring both tax and expenditure programs.

However, the revival of Keynes's economics may only be found when financial and economic orders to secure long-term economic stability and full employment are rebuild, not merely when the economic stimulus package such as fiscal expansion policy is implemented to rescue economic crisis. In fact, Keynes emphasized the restructuring of economic orders more strongly than economic stimulus packages, in his writings. In his article of "The End of Laissez-faire", he argued that it is necessary to improve the management methods of modern capitalism by agency of collective action in order to reduce unemployment, great inequality of wealth, disappointment of business expectation, and the impairment of efficiency and production. Because if capitalism were worked by laissez-faire and individualism, it always brings about the economic evils of above mentioned, which are resulted from the risk, uncertainty, and ignorance inherent in all economic activities. He suggested the reform measures for improving the capitalist economy as follows: the deliberate control of currency and of credit by central institution, the collection and dissemination of data relating to the business situation, the distribution of savings along the most productive channels and so on (Keynes, 1926, p. 292).

Keynes also, in his book of *General Theory*, wrote that "the outstanding faults of the economic society in which we live are its failure to provide for full employment and its arbitrary and inequitable distribution of wealth and incomes" (Keynes, 1936, p. 372). He endeavored to determine why unemployment always occurs in capitalist market economy and how to resolve the unemployment in his *General Theory*. He also offered the measure to improve the income and wealth distribution in here, although he was interested in more the unemployment problem than the unequal wealth and income distribution. In fact, he focused a large part of his discussions in *General Theory* on the reforms of economic orders to mitigate the unemployment and unequal wealth distribution. The reform measures which he suggested are these: the socialization of investment, the public control of central bank, the restriction on short-term trading in stock markets, the heavy tax on inheritance.[1]

Therefore, for the true revival of Keynes economics, first of all, we should discuss the broader reforms of economic and financial system to prevent financial crisis and secure

[1] Keyens suggested the socialization of investment in p. 378, the public control of central bank in p. 235, the restriction on short-term trading in stock markets in p.160, and the heavy tax on inheritance in p. 373 of *General Theory* respectively.

economic stability as well as discussing the effects of fiscal stimulus. In other words, Keynesian financial and economic reform should focus on how to reform the existing financial system and economic order to achieve the economic and financial stability and to have the resilience to financial crisis in relation to the current global financial crisis,

Keynesian financial and economic reform has three levels to be discussed. First, what economic and financial reforms are needed to perform financial activities itself stably in the financial sector, not falling into financial crisis which leads the depression of economy? Second, in order for financial system to support the real investment and economic growth in the real sector, what economic and financial reforms are needed? Third, it is necessary to maintain stable economic growth and employment in order that financial activities can perform its role productively. Then, what reform of economic orders is needed for this? We will address only first and second issues in this paper.

III. Financial Reforms for Financial Stability

1. G20 and financial reforms

The reform agendas for strengthening the global financial system have been discussing vigorously at global, individual, and regional countries level after the current global financial crisis. There were some disagreements between individual countries over the registration of the hedge fund and the private equity fund, the remuneration standards of the executives and managers of financial institutions, and the business scopes of commercial banks. However, most of all reform agendas which are discussing in the global organization of G20 currently come to or are coming to an agreement. These reform agendas are as follows: to strengthen the prudential regulation on banking system, to expand the regulation and supervision to shadow banking system, to reduce the moral hazard posed by systemically important institutions, to strengthen the accounting standards, to improve the compensation practices, and to strengthen the robustness of the OTC derivatives market (FSB, 2009; 2010).

These reform agendas, of course, are based on the diagnoses of the causes of the current global financial crisis in the national or international organizations. In the summit of Washington, the leaders of G20 attribute the root causes of current financial crisis to the inadequate regulation and supervision by supervisors, the inadequate appreciation of risks by financial market participants, and the inconsistent and insufficiently coordinated macroeconomic policies (G20, 2008). These diagnoses of crisis also are appeared in the other official reports of individual countries almost similarly. The diagnoses of causes of the current crisis could be classified: the failure of appropriate supervision and regulation in the regulatory system, the failure of risk managements and market disciplines in financial firms or the distorted incentive structure toward excessive risk taking, and the lack of transparency in shadow banking system, and so on (Department of Treasury of the U.S., 2009; Europe Union, 2009; Financial Service Authority of The U.K., 2009).

The measures of financial reforms which is currently discussing or implementing could be summarized as follows. a) All financial institutions including banks and shadow banking

institutions have to hold more capitals and more high quality capitals with counter-cycle capital reserves to prepare capitals necessary against the time of financial crisis. The capital requirement should apply not only for risks of banking books, but also for risks of trading books. b) All financial institutions and financial activities are subject to the financial regulation and supervision to improve transparency and macro prudential oversight. Shadow banking system, such as hedge fund, investment banks, other funds, off-balance sheet items, and mortgage brokers, has to preserve adequate capital to meet prudential standards. Most of OTC derivative commodities with standardization should be traded in exchange and cleared in central clearing houses. c) The moral hazard which comes from the 'too big to fail' problem of large financial institutions and the risk taking incentive structure should be restricted effectively to reduce the systemic risks and the impacts of failure.

These financial reforms would be hardly successive to secure financial stability. Although the reforms are helpful to get information about all financial institutions and financial markets and to prepare more capitals against financial crisis, they are not helpful to prevent the tendency towards financial fragility inherent in financial activities. Even if financial regulatory authorities get enough information of financial activities, it could not guarantee for them to interpret the meaning of the information correctly, as in the case that Fed did realize neither bubbles in housing markets nor excessive loans in banking sector before the current financial crisis. A more capital requirement also could not be enough to prevent and cure the financial crisis. As King(2009) said, we don't know how capital is enough to prevent and cure the financial crisis in the situation that the riskiness of a bank's activities can change suddenly and radically as market expectation shift.

2. Keynes and Post Keynesian financial reforms

Keynes and Post Keynesian explain the root causes of the general financial crisis or the current financial crisis differently from the above analyses, therefore they propose the reform measures also differently from the above discussions. Of course, although Keynes wrote several papers on the Great Depression, he did not analyze the financial factors of the crisis in detail. However, we could suggest the reforms of financial system and financial orders to improve the stability of the financial sector if we would elaborate the theory of financial crisis based on the theory that Keynes developed to analyze the business cycle and crisis.

1) Financial instability hypothesis and financial reforms

Keynes explained that the primary cause of the Great Depression was at the contraction of real investments, not at the collapse of stock markets. The contraction of investment led to the decline of commodities prices and, in the end, resulted in economic slump. In here, Keynes ascribed the cause of the investment contraction to the attitudes of lenders and borrowers. While lenders asked higher interest rate due to the unsettled state of world and the increase of demand for political, banking, speculative, and distress borrowers, borrowers hesitated to borrow due to the depressed expectation of profit caused by the fall of price and

the unstable state of world. Such attitudes of lenders and borrowers caused the contraction of investment (Keynes, 1930a, 1930b). However, he did not explore the financial factors that brought about Great Depression more detail.

The man who developed further Keyes's analysis of crisis focusing on financial factors is Minsky. He argued that while business cycle is occurred by real investment, the investment is determined by financial factors in Wall Street paradigm in which the finance for investment is generated and allocated through financial institution and usages (Minsky, 1977). Therefore, business cycle or crisis arises from the financial factors which determine and influence the volume and pace of investment. Based on this framework, he developed the financial instability hypothesis in which capitalist economy brings about the financial fragility and financial crisis endogenously with transition from robust finance structure to fragile finance structure. That is, as the expectation on future profits is optimistic during the recovery and the boom period, the financing of investment moves from the robust structure in which hedge finance is dominant to the fragile structure in which speculative and Ponzi finance are dominant. Then, the margins of safety of the financial sector decrease and speculative and Ponzi units become to be vulnerable to the changes in interest rate and to the product and factor market events. This is the very situation that financial structure is fragile. In the fragile financial structure, the increase of interest rate can lead to the abrupt decrease in the price level of capital assets, and it must lead to a spiral declining investment, declining profits, and in turn declining assets prices (Minsky, 1986, p. 215). As a result of these, the function of financial markets will paralyze and the corporations with high leverage will be bankrupt. It is indeed a financial crisis.

Minsky suggested some financial reforms strategies to prevent the financial fragility and financial crisis. First, the amount and the increase rate of bank assets should be controlled at proper level in order to restrict to fund the fragile financial structure. For this, ratio of asset-capital regulation[2], which becomes now the general regulation measure, and the control of the rate of growth of banking are necessary. These measures can mitigate the destabilizing effect of banking through the control on the aggregate ability of banks to finance. In particular, he emphasized that the control on the rate of growth of banks by means of limiting retained earnings may be the measure to lead to a non-inflationary increase of available finance (ibid., p. 321). Second, central banks should become the institutions that are responsible for containing and offsetting financial instability by intervening the portfolio of banks and the financial markets. For this, Minsky suggested that central banks have to use the discounting technique instead of the open market operations in determining the reserves of banks. According to him, discount window method to supply the reserve base induces favorable terms for the hedge financing of short-term position and constrains the tendency towards fragile financing structure (ibid., p. 325).

Some Post Keynesian economists argue that the financial instability hypothesis is very useful for analyzing the current financial crisis, and therefore the current financial reforms can get the insights from the suggestions of Minsky. Of course, the development in the

[2] Minsky says that the 5% asset-equity ratio seems reasonable, especially if capital absorption by covert bank liabilities is taken into account (Minsky, 1986, p. 320).

financial sector during past two decades, that is, the securitization and the change of banking model from deposit-loan to 'originate and distribute' model, have added new factors different from the explanatory factors in the financial instability hypothesis. However, the inherent strengthening process of financial instability which is emphasized especially in the financial instability hypothesis contributes to the current financial crisis as a very important factor (Kregel, 2008, 2010; Wray, 2008). Therefore, the reforms in the financial sector could be followed the suggestions by Minsky.

Kregel insists that the current financial crisis is not the result of the deterioration in cushion of safety caused by the evolution of bank's evaluation of the borrower's credit risk through periods of stability as Minsky hypothesis maintains. Rather, it is the result of the structural change in the assessing methods of creditworthiness of the borrowers due to new 'originate and distribute' banking model (Kregel, 2008). But, Kregel says that, nonetheless, Minsky's analytical framework has been an appropriate tool for understanding that the securitized instruments such as mortgage structures were inherently fragile from their creation, and the evolution towards 'originate and distribute' banking model deteriorate the margin of safety. Therefore, he also suggests the proposals for financial reforms based on the point of view of Minsky's financial instability hypothesis. It is necessary for him to prevent for commercial banks from engaging in particular types of financial activities such as proprietary trading and to regulate the structured products or securitization comprehensively (Kregel, 2010).

Wray argues that it is far too simple to attribute the current crisis to a speculative boom in real estates, to excessive monetary ease, or even to lax supervision. Rather, a large part of blame must be laid on the relative stability experienced over the past couple of decades, because stability is destabilizing as Minsky said. Speculative exuberance is just the result of long-term policy-induced, profit-seeking financial innovation in the boom (Wray, 2008). Therefore, according to Wray, financial reforms should be implemented to enhance the oversight of financial institutions, to promote the stability in housing finance structure, to stabilize interest rates, to control credit directly, and to prevent runway speculation. Moreover, he suggests the economic reforms which enable to improve the economic condition of borrowers, thereby, for them to raise the capacity of repayment or not to rely more on borrowing. Those economic reforms are the policy that promote wage raise for bottom half of workers and the policy that promotes employment for those behind (ibid.).

2) More financial reforms: for restriction on liquidity pursuit

As we seen above, the financial reforms based on financial instability hypothesis mainly have focused on the restriction on the process towards the unstable financial structure or the erosion of safety margin. However, more reforms are needed for the restriction on the tendency of increasing fragility and risks in the financial sector as a whole, which is derived from the characteristics inherent in the financial activities, that is, 'the pursuit of liquidity' or 'the fetish of liquidity'.

Keynes argued that "the fetish of liquidity, the doctrine that it is positive virtue on the part of investment institutions to concentrate their resource upon the holding of liquid securities", is more anti-social than any other doctrines. That is because there is no such thing as liquidity of investment of the community as a whole (Keynes, 1936, p. 155). The pursuit of liquidity, which is as same as 'the fetish of liquidity' termed by Keynes and means the tendency towards having the more liquid financial commitments and transforming their illiquid financial assets to more liquid assets, is the result of the uncertainty that is intrinsic characteristic in the financial commitments. The financial commitments are an inter-temporal exchange, that is, "something is given up in the present in exchange for something else in the future"(Baltensperger, 1989). However, the future, the time in which the financial commitment will be repaid, is laid under fundamental uncertainty, in the meaning of Keynes (1937a).[3] That is the lenders and the borrowers simply don't know the possibility of repayment in the maturity date of the future.

The uncertainty intrinsic in financial commitments must induce the lenders or investors to pursuit the more short-term financial commitments or to pursuit the transformation of ongoing financial commitments to more short-term liquid commitments or cash. The securitization which is blamed as one of the causes of current crisis is just the financial technique innovated for satisfying this pursuit of liquidity. Of course the development of secondary capital markets, in which the already issued securities trade again to retreat or revise their commitments, is also the result of the pursuit of liquidity. The pursuit of liquidity can allow individual lender or investor to revise their financial commitments for more liquid assets. However, the aggregate results of the individual pursuit of liquidity in the financial sector are the increase of illiquidity and risks. That is because the increase of liquidity in individual level is likely to cause for individual investors to take risks more easily. Keynes also already said that "the fact that each individual investor flatters himself that his commitment is liquid (⋯) calms his nerves and makes him much more willing to run a risk" (Keynes, 1936, p. 160).

The increase of illiquidity and risks which is aggregate results of the pursuit of liquidity in individual level now leads to financial fragility and, in the end, financial crisis. The current financial crisis can be explained by this framework. The pursuit of liquidity in the financial sector has developed the financial technique of securitization, the development of marketable commodities, and institutional investors in financial markets. Developed financial market and securitization allow mortgage lenders to expand their loans to even no income and job borrowers, because mortgage lenders can avoid the risks of subprime borrowers as they can sell their loans to the issuers of mortgage backed securities (MBSs). In the end, the securitization and the developed financial markets have boosted the rapid expansion of financial commitments in general and low quality financial contracts, thus have increased the fragility in the financial sector (Cho 2009 provide a detailed analysis of 'the pursuit of liquidity-financial crisis' explanation).

[3] The fundamental uncertainty means the state in which "there is no scientific basis on which to form any calculable probability whatever. We simply do not know"(Keynes 1937a).

The financial system should be also reformed to restrict on the tendency towards the pursuit of liquidity which leads to the increasing fragility and risks in the financial sectors. The concrete measure for this reform is to regulate the securitization of loans, which leads to expand certainly the excessive and low quality loans. It is often argued that the securitization of mortgage can enlarge the available fund to houseless peoples and then serve them to the home ownership. However, in fact, the securitization of mortgage could not serve the stable and expectable home ownership of houseless peoples, because the excessive expansion of mortgage due to securitization is likely to boost the speculation and the rapid price raise in the housing markets. Although the securitization of some securities can be permitted, therefore, the securitization of mortgage must not be permitted. The regulation on securitization of mortgage due to the pursuit of liquidity can restrict the excessive loan and the speculation in the housing markets, and can lead to the stable housing market, in which houseless peoples could have chances to purchase their own house with a more stable plan.

Another reform measure is the restriction on the development of capital market which results in the bubbles and the speculations. For example, the development of capital market have created securitized securities and derivatives, they are the derived commodities based on primary securities or underlying assets. They are more liquid and marketable than primary and underlying assets and thus they can expand extraordinary rapidly. It also allows them to e likely to become the objects of speculative trading. Moreover the expansion of them induces to the expansion of primary and underlying assets. It makes the financial sector expand excessively. To restrict such development of capital market, it is necessary to levy the financial transaction tax and the capital gain tax at considerable rate. It is also necessary to regulate the speculative transactions in secondary markets comprehensively, for example, to regulate the margin trading more strictly.

We can now propose the reform measures for financial stability based on Keynes and Post Keynesian perspectives as follows. First, as Minsky suggested, central banks should control the bank's reserve by means of discount window methods and the bank's rates of capital and assets growth through appropriate regulation, which could contain the cyclical transition toward fragile financial structure that causes financial instability and crisis. Second, as other Post Keynesian argued, the proprietary trading in commercial banks should be limited and the securitization should be also regulated comprehensively to prevent the erosion of margin of safety which is derived from institutional evolution in the financial sector. Third, in order to prevent the fragility of financial sector due to the pursuit of liquidity, that is an essential characteristic inherent in financial commitment, the restriction on an excessive development of financial secondary markets and the prohibition of securitization of mortgage are needed.

The reform agendas of G20 are for improving of the resilience and transparency of financial institutions and for containing moral hazard of financial institutions. However, Post Keynesian proposals of reforms are for stabilizing through the restriction on the inherent tendency towards the destabilizing financial structure and the increasing financial fragility intrinsic in the financial activities.

IV. Financial Reform for Promoting the Growth and Stability in the Real Sector

While financial reforms should be implemented to stabilize the financial sector itself, it also should involve the goals to promote the growth and stability of real sector through the financial reforms. For these goals, we will review Keynes's and Post Keynesian analyses about the relationship between the financial sector and the real sector and then will suggest the measures of financial reforms for favoring the growth and stability of real sector.

1. The financial sector and the development of the real sector

Many economists have argued that the development of the financial sector leads the economic growth through its functions such as the production of the information, the efficient resource allocation, the investment monitoring and corporate control, the trading and risk management, the savings mobilization and collection, and the facilitation of the exchange of goods (Levine, 2005). They have also found empirically that the development of the financial sector which is represented by the growth of bank loan and the increase of liquidity in stock markets bring about the economic growth by, in particular, by improving the efficiency of capital allocation (Beck, Levine, and Loayza, 2001).[4]

While they have focused on the final effects of financial development on economic growth, Keyens had focused on their analyses in the processes of exerting the influence of financial activities on the real economic activities. Keynes developed three ways that the financial sector exerts to influence on real investment in a monetary economy. First, money is not neutral and plays an active role in economic activity. He thought that money acts not only a unit of account that facilitates exchange, but also as a store of wealth that usually transfers value safely to the future without depreciation. The reason that money is used as a store of wealth is that our knowledge of the future is fluctuating, vague, and uncertain. In a world in which the future is uncertain, money is a safe asset, an object of settlement of contracts, and a measure that allows one to transfer purchase power to the future. As soon as money is a store of wealth, it exerts an influence on real investment through the propensity of the public to hoard. He argued that the scale of investment does not depend on the propensity of the individual to save or the physical condition of technical capacity to aid production. It depends on "two sets of judgements about the future, neither of which rests on an adequate or secure foundation-on the propensity to hoard and on opinion of future yield of capital assets" (Keynes 1937a; 118). The propensity to hoard, which represents the liquidity preference of individuals, determines the rate of interest on which decisions concerning investment scale

[4] To define financial development empirically, they constructed four indicators of financial development in banking sector; the ratio of liquid liabilities to GDP; the ratio of deposit money bank domestic assets to deposit money bank domestic assets plus central bank domestic assets; the ratio of claims on the nonfinancial private sector to total domestic credit; the ratio of claims on the nonfinancial private sector to GDP (King and Levine, 1993). And the indicator of liquidity in stock market used the turnover (the value of stock trading relative to the size of the market) and the value of trading to the size of GDP (Levine and Zervos, 1998).

and finance of investment depend.[5] Keynes said that the increase in liquidity preference and the rise of interest rates retard the output of all the objects of which the production is elastic and also holds back investment in the production of other commodities. Thus, unemployment results from decreasing investment that "develops because people want the moon; men cannot be employed when the object of desire (i.e. money) is something which cannot be produced and the demand for which cannot be readily choked off" (Keynes 1936; 235).[6]

In an economy with uncertainty and money (characterized by a zero elasticity of production and a zero elasticity of substitution), money is not neutral and plays a significant role in economic activity. Fluctuation in the desire of holding money as a representation of liquidity preference is an important variable in determining the scale of investment and the speed of growth in an economy with uncertainty and money.

After publishing *General Theory*, Keynes developed a second way that the financial sector exerts an influence on real investment in a monetary economy; he described the role of banks as an organizer and manager of the revolving fund of liquid finance and argued that banks hold a key position in the transition from a lower to a higher scale of economic activity (Keynes 1937c). To emphasize the importance of banks in economic activity, he introduced his concept of 'finance' that means 'the advance provision required by the current decisions to invest' (Keynes 1937b).[7] Banks may supply the finances to firms either through a revolving fund when investment is proceeding at a steady rate, or through an augmentation of money supply whenever investment is increasing. In reality, finance has nothing to do with savings and is merely the credit and debit book entries of banks. Banks, therefore, have the power to control the supply of finance for investment, and by doing so regulate the rate of investment. Accordingly, the policy of banks is very important in determining the pace at which new investment proceeds.

The policy of banks to supply investment finance is in turn dependent on liquidity preference or the unwillingness of banks to lend. If the liquidity preference of the banks is unchanged, the increased demand for financing required to fund new investment in excess of revolving funds cannot be met without a rise in the rate of interest. But, savings is not relevant here, either, because "saving at the prior date cannot be greater than the investment at that date. Increased investment will always be accompanied by increased saving, but it can never be preceded by it" (Keynes 1939; 281). To Keynes, therefore, the "investment market can become congested through shortage of cash. It can never become congested through shortage of saving" (Keynes 1937c; 222). In the end, the supply of cash for investment finance is dependent on the banks' policies, and thus, banks play a key role in the fluctuation of economic activity.

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[5] Keynes introduced here the interest rate theory of liquidity preference in which interest rate is the reward for parting with liquidity and is a measure of the unwillingness of those who possess money to part with their liquid control over it (Keynes 1936; 167).

[6] According to Keynes, money has two characteristics: a zero elasticity of production and a zero elasticity of substitution (ibid., pp. 230-231).

[7] "Planned investment – i.e., investment ex ante – may have to secure its 'financial provision' before the investment take place; that is to say, before the corresponding saving has taken place" (Keynes 1937b; 207-208).

The third way the financial sector exerts an influence on real investment, Keynes argued, is that the development of the stock market has negative effects on investment decisions and economic activity, even though it often facilitates the course of new investment. He insisted that, in an economy that has a separation between ownership and management and a well-organized stock market, a new important factor has entered in which sometimes facilitates investment but sometimes adds greatly to the instability of system. This is because the daily revaluations in the stock market, though they are primarily made to facilitate transfers of old investments between one individual and another, inevitably exert a decisive influence on the rate of current investment (Keynes 1936; 151).

Keynes, however, emphasized that the instability of investment and economic growth tends to increase as the stock market develops. The development of the stock market, which is measured an increase of liquidity in the stock market, renders investment decisions to be regulated by average expectations which are represented in the price of stocks. But, the price of shares or average expectation of existing investment is likely to fluctuate more than the fluctuation in the real value of the investment project.[8] The increase in liquidity is more likely to lead to capricious fluctuation in the price of shares than fluctuation in the fundamental value of firms. Keynes called the activity of forecasting the psychology of the stock market *speculative*, and the activity of forecasting the prospective yield of assets over the whole life *enterprise*. Then, he concluded 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 development of capital of a country becomes a by-product of a casino, the job is likely to be ill-done" (1936; 159).

Of course, these analyses of Keynesian cannot embrace the practical developments in financial activities and the theoretical development in Post Keynesian theory which are developed after the time of Keynes's writings. Nonetheless, the financial development since the 1980s has strengthened the instability of investment decision and investment finance even more. That is, the price volatility of individual stocks which affects investment decisions increases more and more and as a result, the instability of investment decision also increases more greatly.[9] In addition, interest rates which affect the investment finance have fluctuated more widely,[10] and the elasticity of lending on liquidity preference in banks has increased due to the diversification of bank's asset management. Thus, investment finance of firms has also become more unstable (Cho, 2008).

Meanwhile, with regard to the roles of banks, we can and must enlarge the roles of banks in real investment to the functions of screening and monitoring which are argued by many

[8] Keynes enumerated the reasons as follows: (1) A decline in the knowledge in valuation of investment, (2) an excessive influence on the market by trivial profit fluctuation, (3) a conventional valuation by mass psychology of ignorant individuals, (4) irrational behaviour of professional investors, and (5) precariousness in the state of confidence of the lending institutions (Keynes 1936; 153-158).

[9] According to Campbell et al. (2001), market and industry variances have been fairly stable, but firm-level variance displays a large and significant positive trend which had been more than double between 1962 and 1997. And IMF (2003) also shows that the equity price volatility has trend up since the mid-1990s and has been particularly high since 2000.

[10] Honohan (2001) analyzed that the rate of money market and lending have risen continuously since 1980s, the volatility of interest rate have increased.

mainstream economists, in addition to the function of providing the investment fund which is argued by Keynes.[11] That is, the bank can influence not only the size of corporate investment financing, but also the allocation of funds through the selection of more profitable investment projects. Thus, banks also have an influence on the quality and composition of investment as well as the scale of investment.

2) Financial reforms for the growth and the stability of investment and economic activity

Keynes already suggested the necessity of reforms in the financial sector in order to weaken the instability and insecurity in investment decision and investment finance due to the characteristics in monetary economy. First, Keynes argued that central bank should be laid under public control to lessen the fluctuation in the propensity to hoard which is derived from the abrupt changes in liquidity preference of public, thus, investment and employment can be grow stably.

> "Unemployment develops, that is to say, because people want the moon; -men cannot be employed when the object of desire (*i.e.* money) is something which cannot be produced and the demand for which cannot be readily choked off. There is no remedy but to persuade the public that green cheese is practically the same thing and to have a green cheese factory (*i.e.* central bank) under public control" (Keynes, 1936, p. 235).

If the quantity of money was supplied stably and interest rates were maintained at low level, investment and employment would be increase with no fluctuation. Because the liquidity preferences of banks and individuals, thus the supply of investment finance may be maintained considerably stable. The Keynes's argument can be interpreted at present time that the monetary policy of central bank should target more on the creation of employment and the stability of economy than on the stability of price.

Second, Keynes also argued to restrict the short-term trade in the stock markets, because the daily reassessment of investment projects, which results in the capriciousness of stock price and the subsequent prevalence of the speculation, enhances the instability of investment decisions. He suggested that the high brokerage charges and the heavy transfer tax are needed to restrict the short-term trading and the speculation in stock markets.

> "It is usually agreed that casino should, in public interest, be inaccessible and expensive. And perhaps the same is true of Stock Exchange. …· The introduction of a substantial Government transfer tax on all transactions might prove the most serviceable reform available, with a view to mitigating the predominance of speculation over enterprise in the United States" (ibid, pp. 159-160).

In addition to the reforms suggested by Keynes, the business activities of banks also should be regulated to promote the favorable functions of banks for economic growth such as

[11] On the discussion about the functions of screening and monitoring, see Greenwood and Jovanovic (1990).

the supply of investment finance and the screening and monitoring. Banks have enlarged their businesses towards the capital market businesses of proprietary trading and securitization business from traditional deposit and loan business. They also have transformed largely their lending line to consumer loans from corporate loans since the 1980s. These changes in the businesses of banking sector have resulted in the weakening of favorable functions of banks to economic growth. The relative contraction of corporate loans has brought about the weakening of functions of banks to improve the productivity of investments through the screening and monitoring for corporate. And the enlargement of bank's business also has weakened the providing of investment finance and, thereby, the screening and monitoring functions.

To address these issues, the policy to encourage for banks to convert their loans toward corporate loans from consumer loans is required. And the businesses related to issuing of and investing in securities should be regulated strictly. After global financial crisis, in many countries the policy agendas which the proprietary trading and securitization business of banks must be prohibited are suggesting strongly for financial stability. However, these reform agendas are also needed to promote the functions of banks to finance and to screen the investment projects in the real sector.

To sum up, the financial reforms for promoting the growth and stability in the real sector are as follows. First, the monetary policy of central bank should target more on the creation of employment and the stability of economy than on the stability of price. Second, the short-term and speculative trades in stock markets are regulated by means of the high transfer tax. The heavy capital gain tax may also be good measure to weaken the short-term and speculative trading. Third, the business related to securities issuances and investments of commercial banks should be restricted strongly and the business of corporate lending should be encouraged.

V. Conclusion

The financial deregulation and financial innovation and the principle of laissez-faire and market competition in overall economic activity caused the catastrophe of the global financial crisis of 2008. Therefore, instead of the principle of laissez-faire and market competition, new financial and economic orders are needed. In this paper, we proposed the financial reform measures and economic policies based on Keynes and Post-Keynesian analyses on the monetary economy.

First, in order to prevent financial crisis, the excessive development of capital secondary markets and the securitization of loans which lead the exuberance and speculation in the financial sector should be restricted strongly. The pursuit of liquidity through the development of secondary markets and the securitization in the financial sector causes the rapid growth of risky financial commitments and leads the fragility in the financial sector as a whole. Of course, as Minsky and Post Keynesian suggest, the reform measures of the control by central bank over the quantity bank's reserve and the composition of loans by means of

the discount window methods, the limitation on the proprietary trading in commercial banks, and the securitization also introduced.

Second, in order to promote the growth and stability in the real sector, central bank should maintain the rate of interests at low level, thus keep the liquidity preference without fluctuation. The heavy transfer tax and capital gain tax should be levied for the short-term and speculative trades in stock markets, because the speculative trades in stock markets make investment decision unstable and subsequently hinder economic growth. And commercial bank's business related to securities issuances and investments should be regulated strongly to enhance the functions of supplying, screening, and monitoring provided by commercial banks through corporate loans.

However, these financial reforms actually need the rearrangement of financial structure and the new introduction of a prudential regulation on assets. First of all, the capital market-based financial system should be transformed to bank-based financial system. Under bank based system, the excessive and speculative expansion in the financial sector would be restricted. In fact, the excessive securitizations and other derivative instruments issuances were grown with and in development of secondary capital markets. The proprietary trading of commercial banks also is grown with the development of secondary capital markets. The reform of the financial system towards bank based system may be possible through the high transfer tax and capital gain tax in capital markets, and the regulation on innovations in financial instruments to pursuit the liquidity.

The next reform is to introduce the regulation and supervision on the assets management of banks. We would term this 'asset prudential regulation' in contrast with 'capital prudential regulation'. The asset prudential regulation is to regulate the asset composition and management of commercial banks. Commercial banks have transformed their asset composition and management from corporate loans to consumer or housing loans, and to securities investments as appeared in proprietary trading since 1980s, which resulted in excessive loans and thereby bubbles. These movements of the composition of assets are not controlled adequately by capital prudential regulation alone. The asset prudential regulation should be aimed at inducing commercial banks to focus their businesses on the corporate loans and the sound house loans to promote productive activities.

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