The Uno Newsletter:
Rejuvenating Marxian Economics through Uno Theory
(Vol. II, No. 15) 20 April 2015

In the third English volume of the Uno Newsletter, we feature two articles on Piketty's *Capital in the twenty-first century*. Makoto Itoh (University of Tokyo) comments on significance and problems in Piketty's analyses and then examines from a Marxian perspective. Robert Rowthorn (Cambridge University) argues that Piketty's assumption regarding the elasticity of substitution is not correct, and that his method for measuring changes in the capital-output ratio is misleading.

Contributions include three working papers. Makoto Nishibe (Hokkaido University) identifies three modes of commodification (external, internal and general mode) with different degrees of economic integration by the market, and analyzes the transition of three modes of capitalist economy by using the simple models. Tsuyoshi Yuki (Saitama University) re-examines the capital theory debate between Gesell and Marx, and shows why Gesell's concept of capital has been rehabilitated now under financialisation. Kei Ehara (Saitama University) reviews development of crisis theory after Uno following the debates on the process of accumulation, on the credit system and on reorganisation of the stages theory concerning crisis.

The Uno Newsletter (in Japanese) started after the 30th Memorial Conference (2007) in honour of Kozo Uno (1897-1977) who developed an approach to understanding capitalism (and appropriating Marx's ideas) that contains three levels of analysis: the general theory of capitalism; the stages of capitalist development; and detailed studies of particular countries and time-periods. In the open spirit of Japanese political economy, contributions in the Uno Newsletter draw on diverse intellectual traditions. The focus of The Uno Newsletter includes the basic theory of capitalism; the integration of heterodox economics such as Marxian, Post Keynesian, Institutional, Evolutionary, and Neo-Schumpeterian economics; the theory of capitalist development; and the empirical analysis of capitalism.

We welcome comments on the newspaper *editorsEN@unotheory.org* and on each working paper.

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Political Economy of Disparities Re-expanded

– Comments on *Capital in the Twenty-First Century* –

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Thomas Piketty's *Capital in the Twenty-First Century* is making a hit also in Japan following in the USA. Its Japanese version is selling around 150 thousand copies in a month or two soon after its publication in December 2014. Newspapers, TV, and journals widely report and discuss its contents as well as interviews with the author. Such popularity is quite unusual in the field of economics. To some extent, in my view, this comes from the title's attraction to remind many people Karl Marx's major work anew in relation with basic recurrent tendencies of capitalism to oppress workers.

Although Piketty is not a Marxian economist, he clearly refers to Marx's *Capital* several times in his book, and stands for political economy in a broad sense. He brings us back to a central issue on causes and remedies of economic disparities in the long history of political economy since the Classical school. This subject naturally attracts people's attention broadly concerning the actual background behind the popular dissatisfaction or angry among people against economic inequality in many countries, typically expressed by the street occupy movement in the USA with a slogan 'we are 99%'.

While welcoming Piketty's contribution in this regard, this paper begins with summing up characteristic analyses in the first section, and then comments on significance and problems in them to be followed up from a Marxian perspective in the second and third sections.

1 T. Piketty's Analyses of Disparities Re-expanded

Capital in the Twenty-First Century is composed from four Parts. Part one 'Income and Capital' and Part two 'The Dynamics of Capital/Income Ratio' define and analyze the historical trajectories of ratio between national income and capital as national asset in major advanced capitalist countries. Part three demonstrates shifts in 'The Structure of Inequality' derived mainly from changes in capital/income ratios. Part four presents policies for 'Regulating Capital in the Twenty-First Century' necessary to prevent re-expanding income disparities in our age.

National capital against national income is a central notion for the whole analyses. National capital is defined 'as the total market value of everything owned by the residents and government of a given country at a given point of time' (Piketty[2014]p.48. Only page numbers are shown below for this book). It consists of nonfinancial assets (land, dwellings, other buildings, machinery, inventory, patents, etc.) and financial assets(bank account, mutual funds, stocks, bonds, insurance policies, pension funds, etc.), less the total amount of debt. Thus, it is almost identical to the net national assets (or national wealth) in the stock section of national economic account.

In Britain and France, data on national assets and national income were collected as a foundation of tax system since the 17th century. Estimation of historical statistics on national income has recently been collected more and more widely also on other countries in the world as exemplified by A. Madison[2007]. Utilizing them, Piketty presents original analyses of long historical trends in capital/ income ratios, and estimated trends therefrom of proportions in national incomes distributed between capital and labor.

The ratio of national capital (assets) against national income is indicted as β, and given an important significance. As it is an essential factor, together with the rate of return on capital (r), to determine the capital's share in national income (α). The first fundamental law of capitalism is thus formulated as $\alpha = r \times \beta$ (p.52).

As we see on the Figure 3.1 and 3.2 following such preparatory formulation, the total amount of national capital in Britain and France used to be 6-7 times of annual national income continuously since the 18th century until the First World War (p.116-17). In the 19th century, the proportions of capital other than agricultural land sharply increased, but the total capital/income ratios (β) were maintained almost unchanged.

The average rate of return on capital used to be 4-5% in long history since ancient periods. Novels by J.Austen and H. de Balzac clearly exemplify this as a commonsense around the beginning of 19th century. Thus the proportion of national income being gained by capital (α) was over 30% in most years in 18th and 19th century.

After the First World War, however, the capital/income ratios fell down dramatically to 200-300 % by about 1950. They recovered slowly thereafter, and then regained rapidly since around 1980 to a level over 600% by 2010 almost the same level as before the First World War period.

This U shape curve in β characterizes 20th century. It is observable also in other advanced countries. Its amplitude was smaller in the USA, but still β declined from nearly 500% in 1930 to lower than 350% in 1970, and then recovered to more than 400% by 2010. In Japan, β declined from 600-700% in 1910-30 to 200-300% in 1950-60, and then recovered after 1980 to come back to 600-700% since 1990, showing a typical U shape curve (p.195).

As an annual increase of national capital is theoretically balanced to national saving in the same year in national economic accounts, the capital/income ratios β must move in proportion to the national saving rare (s). At the same time, the ratios β must be lowered inversely with the national economic (or income) growth rate (g). Therefore, the second fundamental law of capitalism is formulated as $\beta = s/g$ (p.175). For instance, the Japanese high saving rate did not much elevated β in the period of high economic growth until the beginning of 1970s. However, her saving rate still maintains about 15%, while the average growth rate became widely lowered to a little over 2%. As a result it is no wonder to see a recovery of β to the high level of 6-7 times of the national income in Japan.

So long as the rate of return on capital (r) has historically tended to keep 4-5% in average (though it varies in different types of assets and in different ages) since ancient period, it was generally higher than the economic growth rate ($r > g$) (p.353-54).

Combining these analyses, Piketty underlines that the capital's share in national income (α) has recovered naturally after its exceptional decline in the 20th century. We should recognize that the recovery clearly coincides with the age of neoliberalism.

S. Kuznets [1953] presented a Bell-curve theory on economic inequality, expecting that the much elevated level of in equality in income distribution since the beginning of industrialization in the 19th century was now being lowered after the middle of 20th century along with the maturation of industrialization. According to Piketty's analyses, this expectation is betrayed, and the capital's share (α) is coming back to 30-40% like in the 18th and 19th century, and may even go up further beyond it (p.242).

As we read in Part three of *Capital in the Twenty-First Century*, distribution of national capital is unevenly structured and tends to be concentrated into top 10%, and further 1% of wealthier social strata, while the middle class strata is declining. The proportions of national capital owned by top 10% reach 50% even in Scandinavian countries, 60% in other European countries, and so much as 72% in the USA. Contrastingly, the portions of national capital owned by lower 50% among people in European countries remain less than 10%, or mostly less than 5%, and in the USA just 2%.

Such uneven distribution of national capital is further promoted by inheritance. The share of inherited capital occupies 50-60% of private national capital of the USA in 1979-80. It is higher in Europe. In rapidly aging societies like Japan, the share of the inherited assets must increase as mortality rate rises in the 21st century.

Unevenness in labor income is also expanding, as much elevated high salaries of super-managers are spreading especially from the US giant corporations.

Thus the shares of combined national income (form capital and labor) of top 10% are now 35% even in Germany and France, and 50% in the USA. The wealthiest 1% in the USA gains 20% of national income. Although the USA has traditionally been regarded as a competitive society based upon meritocracy, such recognition is deeply dubious in view of the highly uneven and structured income distribution. The average income of parents of Harvard University students to reproduce top elites is now around 450 thousand dollars a year, or top 2% of income strata.

In Part four, Piketty proposes policies to correct such disparities re-expanded, and to reconstruct 'social states' to redistribute income so as to guarantee public spending for needs in education, health care, and pensions. Together with necessity to re-strengthen progressive income tax and inheritance tax, a new plan of annual tax on capital under international cooperation is presented. As an example, a blueprint for a European wealth tax of 0% on fortunes below 1 million euros, 1% on fortunes between 1 and 5 million euros, and 2% on fortunes above 5 million euros is proposed (p.528). This will earn about 2% of European GNP from 2.5% of population to serve for social state.

2 The Issues to be followed up from a Marxian Perspective

What to estimate the analyses and proposals in *Capital in the Twenty-First Century* upon the ground of Marxian political economy?

Above all the book gathered broad attention to economic disparities re-expanded in capitalist economies. This is certainly welcome. Uneven dynamism in distribution of income and wealth (or capital) to social classes in capitalist economies used to form a central subject in classical and Marxian political economy. So long as the mainstream neo-classical economics generally works on methodological individualism with a belief in natural order of liberty, rationality and efficiency within capitalist market economy, it tends to miss or neglect this research topic, especially in its excessively specialized and fragmented theoretical models and analyses. Piketty revived the traditional political economic research program as an exceptional case in neo-classical economists.

As T. Tachibanaki [2014] points out, analyses of re-expansion of unevenness in income flow have already attempted. Piketty comprehensively analyzed trends in disparities in ownership of national capital or stock of wealth in structural combination with re-expanded disparities in income flow in quite a long history of capitalist economies over centuries.

He recognizes that 'the principle of infinite accumulation' and the resultant growth with concentration of capital have strongly promoted inequality in distribution of wealth and income so as to widen economic disparities. As D. Harvey [2014] points out, this principle was already theorized in Marx's *Capital.* Piketty also refers to it, and states that Marx's insight on this point is 'valid for the study of the twenty-first century as it was for the nineteenth century' (p.10).

In addition his study is close to Marx's approach also in its long historical perspective. He strived in particular to collect historically long statistical data on national assets and national income as far as possible including data stored in tax offices. On this aspect his contribution should be highly estimated and appreciated.

Nevertheless his theories and analyses leave several issues to be followed up in view of political economy based on Marx's *Capital.* Let me discuss five issues below.

[1] The social foundation of return on capital.

In view of Marxian political economy, which succeeded the labor theory of value from the classical school, the social foundation of return on capital is in surplus labor of wage workers (and socially weaker small producers like peasants). Piketty avoids such a theory and analysis. As a result, in his analyses the uneven re-concentration of wealth and income to upper social strata with economic disparities re-expanded tends to be conceived just as re-distribution from the declining middle class. The important trend which is revealed in his statistical analyses must broadly be related in Marxian approaches clearly with the current tendencies of capitals to make labor conditions severer among a wide range of wage workers, by reducing the social substance of value of labor-power or necessary labor-time to maintain their living, increasing number of cheap casual workers, and globally utilizing more and more cheaper workers in abroad.

Theoretical attempts to see the logical relation between the labor theory of value and national economic accounts have already been presented as I have discussed elsewhere (Itoh, Makoto [2005]). Such attempts may further be applied to the analyses of structural economic disparities in wealth and income in our societies.

There remains also a problem how to understand the relation between concentration of national capital and increasing disparities within labor income including extremely high salaries for super-managers such as in the USA, as P. Krugman [2014] suggests. It is dubious if such high salaries for super-managers are really labor income, or a part of distribution of return on capital, as Mituharu Itoh [2015] points out.

Piketty's proposition that return on capital is usually higher than the economic growth rate (r > g) also requires us more of examination. This is understandable in view of the labor theory of value in simple cases. For instance, under the assumption of constant technologies without difficulty of realization of values in a market, the substance of value of total capital, being composed from constant capital (C) and variable capital (V), as well as national income, basically derived from value of labor-power (V) and surplus-value (M), increase all proportionally at an equal rate. So long as national income grows by converting only a part of surplus-value into capital, the economic growth rate (g) must be smaller than the rate of return on capital (r). It must be worth trying to clarify under what conditions the proposition r > g stands valid more generally from the view of labor theory of value.

Though Piketty's analyses contain international comparative studies, they are mainly based on each individual national economic accounts. There remain not so easy problems further to analyze the world economy as organically integrated system both theoretically and empirically. As the Oxfam report in January 2015 points out that the share of assets owned by top 1% persons in the world reached 48%, and will soon surpass 50% in 2016, more than the rest of 99% of people, the uneven concentration of wealth and income must be more obvious in a global scale. We have to endeavor critically to analyze also the logic of such an world economic order in view of labor theory of value.

[2] The notion of capital

As we read, Piketty defined national capital as the total market value of all nonfinancial and financial assets owned by the residents and government of a given country minus the total amount of debt.

Though this notion of capital conventionally facilitates to identify the total net assets in national economic account data on stock with (fetish) capital as a source of non-labor income flow in annual national income, it is theoretically incorrect in view of Marx's *Capital* as noted by Harvey [2014] and Mituharu Itoh [2015]. So long as Piketty assumes an average return on capital as such assets has been 4-5% since the ancient period, such a notion of capital seems applicable to all the stock of assets including land, means of production and houses even in pre-capitalist societies. Capital in forms of merchant and money-lenders did appeared surely from very ancient period as self-expanding motion of monetary accumulation. However, it used to be on the periphery of pre-capitalist communal societies, based on market economic order originating from an inter-social trading. Within communal pre-capitalist societies, the most of assets such as farm land, agricultural means production, and houses were not owned and used as capital.

In the process of forming a modern capitalist society, as Marx discovered, primitive accumulation of capital (often with violent enclosure movement) decomposed communal ownership of farm land into modern private ownership of land, by expropriating the traditional right to use and live on the land from peasants, and thus socially created free workers without having means of production for capitals to utilize them as wage workers. For the first time in long human history, capital was enabled to organize the social process of production by utilizing labor-power as a commodity, and to convert the whole society into a complete market economy.

In such a capitalist society, the central basic relation of production is organized by capitals to hire wage workers, and to earn surplus-value by exploiting surplus-labor beyond necessary labor for maintaining workers' living through wages. The major forms of return on capital and land such as profit, interest, and rent became more and more social redistribution of surplus-value.

At the same time, the fetish notion of capital spreads socially to believe that all the non-financial and financial assets in a society automatically and naturally earn more or less an average rate of return in a market.

In Marx's theoretical analyses of capital, such historical specificities of capitalist society are revealed systematically. Piketty's historical concern is not qualitatively deepened enough to such a level, and remains just quantitatively within a neo-classical conventional naturalist notion and fetish commonsense by confusing all the kinds of assets with capital.

Even in our age, small peasants' farming land, assets for small-scaled family-run businesses, workers' own houses for living, or state-owned public land and various facilities cannot in themselves form capital in accord with 'the principle of infinite accumulation' as a source of non-labor (unearned) income for top wealthier class of people. Therefore, Piketty's important discovery of the U shape trend in the capital/income ratio and the resultant economic disparities re-expanded in recent decades must be re-examined carefully by taking note of these weaknesses.

It must be desirable to promote researches further what portions of national capital in Piketty's analyses are to be excluded from the statistical data in order to see more actual features in concentration of private capital serving as the source of unearned income for the capitalist and rentier classes.

In relation to this sort of project, Piketty's analyses have also to be supplemented by the effect of much financialized aspect of capitalism in our age. As he concentrates mainly on net national capital assets by deducing total debt, the function of enormously expanded financial assets seems neglected. As Mamiya [2015] refers to it, the total amount of financial assets in major countries increased from 4-5 times of national income in the first half of the 1970s to 10-15 times in 2010, and particularly in UK it reached 20 times of national income. Even though the huge increase in financial assets is largely cancelled out by similarly increased debt in net national wealth in national economic account, actually the increased amount of state bonds, for instance, causes a lot of redistribution of income in the form of interest payment positively to wealthier persons who are afford to purchase sate bonds directly or indirectly in various investment trust funds, whereas workers have to bear consumer tax more and more with negative impact on income. Financialisation of labor-power as a result of increased housing loan and other forms of consumer credit must surely have certainly a negative effect to both net assets and disposable real income of mass of working people.

[3] Self-contradiction of capital

Another weakness in Piketty's notion of capital is in its ahistorical neglect of self-contradiction in the process of accumulation of capital. In contrast, Marx's theory of principles of infinite accumulation of capital systematically attempts to demonstrate logical necessity to cause self-destruction of capital in periodic crises due to its inner contradiction based on commodification of labor-power being combined with the fundamental instability in monetary and financial mechanism.

In *Capital in the Twenty-First Century,* Piketty argues that 'the financial crisis as such seems not to have had an impact on the structural increase of inequality' (p.297). Nevertheless he also recognizes that the increase of inequality caused stagnation of purchasing power of the lower and middle classes in the USA, and induced a lot of unstable debt among these classes from the enormous saving by the well-to-do. He thus suggests that the main causes of global financial instability to have brought about the subprime economic crisis in 2008 were in the structured increase in the capital/income ratio, not just in the global imbalances.

We have to investigate deeper on this issue, and rethink the basic theory of crises including innate instability in the financial system as Marx attempted to show as a part of theory of accumulation of capital, and try to analyze why and how such innate basic principle of economic crises presents itself in the form of frequent swells and collapses of speculative bubbles such as the subprime crisis in our age. The roles of government and the central banks to mobilize public money and finance to rescue operation of financial and industrial corporations in acute crises in our day, for example, surely characterize the contemporary impact of economic crises on the structured increase of inequality.

[4] The rate of return on capital

In Piketty's analyses, mostly the rate of return on capital is assumed stably as 4-5% since ancient period, as we have seen. However, so long as the source of surplus-value and the notion of capital remain unclear, theoretical ground for such an assumption is not presented. Therefore, his treatment of the average rate of return on capital contains inconsistent fluctuation or variation. In so far as he emphasize the formula $r > g$, he implies that the average rate of return on capital (r) can and does fall along with a fall in economic growth rate (g).

Actually he presents a sort of theory of falling tendency of the rate of return as Matoba [2014] notices. However, its foundation seems rather weak, and in an abstract social (or political) necessity to prevent excessive increase in the share of capital income against labor income (α) so much as 40-50% of total national income when β goes up to 10 times of national income with 4-5% of r.

In contrast Marx's theory of tendential fall in the rate of profit was based on logically stronger foundation in the labor theory of value. So long as the principle of infinite accumulation results in increase in the ratio of constant capital (C) as past dead labor in the means of production against variable capital (V) as living labor to produce annual total national income (V + M), the rate of profit $r = M/(C + V)$ must have tendentially fall down. Because $r = M/(C + V)$ is always smaller than $(V + M)/C$. In this formulation, however, the tendential fall in the rate of profit due to a rise in β and the resultant fall in the rate of economic growth (g) may go along with a rise or constant rate of surplus-value $m' = M/V$, or α.

N. Okishio [1976] showed that Marx's law of tendential fall in the rate of profit cannot stand under certain presumptions, and has globally gathered much attention and arguments among Marxian economists. Including such arguments, Piketty's presentation requires us anew how to analyze both theoretically and empirically the social average rate of return on capital in relation with actual trajectory of statistical data in national economic accounts among others in order to see the share of capital income in the national income. There must be a series of interesting problems to analyze; what proportion of capital income is actually derived from abroad in our globalized economies, what effects do the political operation of the rate of interest have on the total rate of return on capital, what about capital gains or loss in speculative trading, how far the structurally diversified labor market works for the rete of total return on capital, etc. In performing such research projects, we have to take care on the fact that our capitalist society is not composed and moved not just by individual persons but organized in main by profit-making corporations (often supported by government) as Marx treated as socially particular relations of production and trading as capitals. The structural factors to determine the total average rate of return on various kinds of national assets must therefore be analyzed by considering the central role of capitalist business enterprises to produce and distribute social surplus-value.

[5] The Historical Significance of the U Shape Curve of β

One of major contributions by Piketty's work is in the impressive discovery of the U shape curve in the long history of statistical data of β or the national capital/income ratio as a basic cause of the resultant similar U shape change in disparity between capital and labor in capitalist countries. This interesting discovery, if it is more or less correct, needs further investigations.

For instance, why did β maintain about 600-700% with 4-5% of the average rate of return on capital so stably and so long since the 18th century until the first World War in major capitalist countries? Why did it not increase despite of a rate of return on capital clearly higher than the rate of economic growth rare ($r > g$)? How did this problem relate to various historical events such as the mercantilist wars, luxurious spending by Kings and aristocrats in the 18th century, civil and industrial revolutions, periodical crises in the 19th century, as well as the growth of trade unions to raise the real wages especially since the late 19th century? Referring to the fact that the internal composition of national capital itself was greatly changed as Piketty pointed out, the relative stability of β together with the rate of return on capital seems so much puzzling.

Similarly the big decline of β in the 20th century cannot easily explained away by

Piketty's own simple summary that 'the decline in the capital/labor ratio between 1913 and 1950 is the history of Europe's suicide, and in particular the euthanasia of European capitalists' (p.149).

In reality the decline was largely due to a series of tragic historical disasters; the damage by the First World War as a result of imperialist development of capitalist countries, the Great world crisis after 1929 including the impact of the distortions in the post-war international politico-economic order, the resultant recovery programs in the form of fascism and new deal, to be followed by the destruction in the second World War. Thereafter social democracy in the line of new deal was established as a capital-labor cooperative social system with egalitarian redistribution welfare policies became a dominant idea among capitalist countries to lead the reconstruction and maintain the high economic growth until the beginning of 1970s.

The Soviet type of socialism was born by the social crisis of the first World War, seemed successfully to continue industrialization without social problem in unemployment in contrast to the Great crisis in the capitalist countries in the 1930s, expanded to the East-European countries in the last phase of the second World War, and former colonial countries tended to follow it during and after anti-colonial liberation wars and revolutions. Even though the Soviet socialism actually contained a lot of social problems hidden internally, it served as a powerful side pressure for capitalist countries to move on social democratic path in those days so as to defend their basic socio-economic order.

As Piketty points out, in the USA the highest rate in progressive income tax used to be 81% in a half century during 1932 and 1980 in average, and the highest progressive inheritance tax was 70-80% in that period, though somewhat lower in Europe and Japan. Such a taxing system was obviously realized and maintained under the social democratic system until the age of post-War high economic growth, and effectively worked to prevent the recovery of β and the economic inequality in the U shape.

Contrastingly, the U shape recovery in β and economic disparities became prominent after the 1980s, when the historical limits of high economic growth in the capitalist countries was revealed, caused stagflation and prompted the turn of basic policies from social democracy to neo-liberalism. The turn of basic policies to neo-liberalism liberated profit-making private capitals from the social democratic regulations in favor of trade unions and working conditions for laborers, as well as through privatization of public enterprises, and induced wide reductions of highest rate of income tax and inheritance tax. The crisis and fall of the Soviet type of socialism clearly facilitated such a shift in basic policies in capitalism.

In this regard, Piketty's warning on the recovery of β and disparities in the U shape curve should be integrated into a part of critique of the historical significance of neo-liberalism in contemporary capitalism.

3 Alternatives to Disparities Re-expanded

Piketty proposes modernization of 'social state' to guarantee fundamental social rights for all residents to receive public support for education, health care, and pension. The proposition requires redistribution of national income against disparities re-expanded. Together with re-strengthening both progressive income tax and inheritance tax, a new international annual tax on capital such as a European wealth tax is recommended as we have seen.

There are some comments criticizing Piketty as a Utopian to dream an alternative impossible to realize. Such comments, however, must assume narrowly the politico-economic order under current neo-liberalism on the ground of globalized competitive capitalist market principles with a tendency for economic disparities as a natural and rational social system.

In fact, more than thirty years of global neo-liberalism has actually failed to realize rational, efficient and ideal economies but caused economic crises, stagnation, new forms of poverty problems such as the increase of working poor persons, together with disparities re-expanded.

Against this experience we are inevitably urged to recall the feasibility of social democratic alternatives in our age. The historical experience in the post-War high economic growth period was characterized by the Fordist regime of accumulation with an egalitarian cooperative custom or social contract to raise real wages in proportion to a rise in labor productivity, forming a virtuous circle for economic growth with increasing effective consumers demand. This period should not be regarded just as a negligible exceptional case. Even thereafter, among the USA, Northern European, and Central European countries, there are different degrees in disparities of distribution of wealth and income according to their different policies and social systems, as Piketty observes. The change of government into Democrat parties with similar New New-Deal type of policies in the USA and Japan in 2009 demonstrated effectiveness of their social democratic policies for economic recovery until the next year even in the globalized contemporary world.

Having in mind such historical facts, alternatives to disparities re-expanded should not be excluded or narrowly limited, but rather be re-conceived widely for selection among people according to each characteristics and historical social conditions of their own countries.

Piketty's proposal for international wealth tax, in addition to re-strengthening progressive income and inheritance tax, for instance, is worth seriously considered as a part of wide attempts of reconstructing social democratic policies in the 21st century. In its spirit, it actually follows a tradition in social democracy against unearned income and wealth obtained by just ownership of land and capital, demanding more respect and social right for labor income. As a brain for French Socialist Party, working in close relation with the roles of EU, Piketty must conceive an international capital tax like a European wealth tax as an actually feasible project to realize.

In the USA and Japan, however, this sort of international capital tax system would seem still unrealistic or difficult to realize in the near future. Re-increase of progressive income tax and inheritance tax must be much easier in such countries. Actually in Japan, the inheritance tax was somewhat elevated in 2014, and in the USA President Obama is proposing to re-raise capital-gain tax mainly on the top 1% wealthiest persons in 2015. Piketty effect may have promoted or facilitated such policies.

However, social democratic alternatives so as to equalize and stabilize economic lives among people against neo-liberalism are certainly not to be confined in such tax reforms recommended by Piketty. Already there are broader and increasing expectations for growth of so-called social economies such as in models of basic income, green recovery strategies, attempt to organize local currencies, workers' cooperative union enterprises, and reconstruction of trade union movements in various countries. Alternative paths for 21st century models of social democracy are gradually and concretely coming afloat with them.

In retrospect, 20th century type of social democracy generally used to expect redistributive and employment policies of the nation states. In accord with globalization of capitalist economies, social democracy in 21st century is required to realize super-national cooperation on various issues including Tobin tax in order to restrict speculative trading of foreign currencies, and international capital tax as Piketty suggests. At the same time, in accord with relatively weakened economic power of the nation states, more grass-rooted cooperative solidarity economies in local regions in favor of local production for local consumption have increased importance. Ecological economic life with initiatives among people in the spirit of mutual assistance and cooperation can be more easily realized in such attempts and direction, sometimes in combination with local governments' assistance, rather than in economic activities by big businesses, or by national wide state policies. In this regard the mayor Park Won-Soon's initiative to promote social economy in Seoul city, and to organize Global Social Economy Forum (GSEF) internationally since 2013 should be highly estimated.

How to think of socialism? Piketty recognizes that the solution suggested by Marx on the problem of capital to cause and increase inequality in a form of socialism to abolish private ownership of means of production and other capitals was more logically consistent than his own. However, in his view the human disaster caused by the Soviet-style of central planning illustrated clearly that the coordination of market economy is indispensable for the future (p.531-32). It is obvious that his total negation of socialism due to the failure of the Soviet Union is too hasty and short-sighted. Even if the coordination function of market economy must remain, various models of democratic market socialism with public ownership of major means of production have been already presented as feasible and desirable as I reviewed elsewhere (Itoh, Makoto [1995]). In such contemporary theories for socialism Marx' thoughts and theories are fully utilized, separate from the Soviet type of failed experiment for socialism. The final solution to the inevitable tendency to increase economic inequality under capitalism as Piketty presented anew, as well as to the fundamental instability and the ecological deepening crisis must still be given most consistently by socialism freed from infinite accumulation principle of private capital.

Thus we should endeavor in international cooperation to explore further alternatives to disparities re-expanded much broadly than Piketty's suggestion, concerning 21st century models of social democracy and socialism in organic combination.

References:

Harvey, D.[2014] Afterthoughts on Piketty's Capital, translated into Japanese by Nagahara, Y. in *Gendai-Shisou,* vol.42.-17.

Itoh, Makoto [1995], *Political Economy for Socialism,* Macmillan, and St. Martin's.

Itoh, Makoto [2005], The New Interpretation and the Value of Money, in Moseley, F. ed.

Marx's Theory of Money, Palgrave Macmillan.

Itoh, Mituharu [2015], [Misreadings, Errors, etc.] in *Sekai,* March.

Krugman, P.[2014] Why We're in a New Gilded Age, translated by Yanbe, A. in *Gendai-Shisou,* vol.42.-17.

Kuznets, S.[1953], *Shares of Upper Income Groups in Income and Saving,* Cambridge, M.A: National Bureau of Economic Research.

Madison, A.[2007],*The World Economy: A Millennial Perspective/ Historical Statistics,* OECD.

Matoba, A. [2014] [Pketty's *Capital in the Twenty-First Century*], in *Jokyo,* July/August.

Piketty, Thomas[2014], *Capital in the Twenty-First Century,* translated by Arthur Goldhammer, The Belknap Press of Harvard University Press, Cambridge, Massachusetts, and London. (The first French edition,2013.)

Tachibanaki, T. [2014] [Impact of Thoma Piketty's *Capital in the Twenty-First Century*], in *Gendai-Shisou,* vol.42.-17.

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Piketty's *Capital in the Twenty-First Century*: A Critique

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Thomas Piketty's *Capital in the Twenty-First Century* (2014) documents long-term trends in wealth ownership and income distribution in advanced economies. It shows how the share of income accruing to wealth-owners has increased dramatically in many countries in recent decades[1] . It also provides a simple explanation of this development based on the standard neoclassical theory of factor shares. This theory establishes a link between the capital intensity of production and the share of profits in total output. The nature of this link depends on the elasticity of substitution between capital and labour. When this elasticity is greater than unity, an increase in the capital-output ratio leads to an increase in the share of profits. This, in essence, is Piketty's explanation for the increased share of wealth-owners in national income.

The above explanation has two related flaws. Piketty's assumption regarding the elasticity of substitution is not correct. There is considerable evidence that this elasticity is less than unity. Moreover, Piketty's method for measuring changes in the capital-output ratio is misleading. He fails to allow for the disproportionate increase in the market value of certain assets, especially housing, in recent decades. This leads him to conclude, mistakenly, that the capital-output ratio has risen by a considerable amount. In fact, conventional measures of this ratio indicate that it has been either stationary or has fallen in most advanced economies during the period in question. This would suggest that the basic problem has not been the over-accumulation of capital, but just the opposite. There has been too little real investment.

Piketty also discusses future trends. He lays particular stress on the gap between the rate of return on capital and the growth rate of the economy. He argues that this gap ($r - g$ in

[1] See Piketty (2014), Figure 6.5 on page 222.

his notation) will get wider in the future because the long-term growth rate *g* will decline as population growth and technical progress decelerate[2]. He argues that this development will lead to an increasing concentration of wealth ownership and the emergence of a rentier class which lives mainly or entirely on the income from investments. In this context Piketty considers the behaviour of the ratio s/g, where s is the average propensity to save. As a matter of arithmetic, s/g is equal to the overall ratio of wealth to income in the society. If this ratio increases, as Piketty expects, the greater will be the importance of inherited wealth in the life chances of future individuals and hence the greater the scope for inherited inequality. Piketty's discussion of future trends in the inequality of capital ownership and its implications for inheritance is plausible. However, there is one important omission. There is very little discussion of future trends in factor shares. What, for example, is the implication of a lower economic growth rate for the share of profits in national income? This issue is discussed below. It turns out that, as in the historical analysis, the elasticity of substitution plays a central role.

A word of warning is in order. The following analysis is based on the neo-classical theory of factor shares. This theory has been often criticised on both theoretical and empirical grounds, but it is the theory which Piketty uses and I am merely following his example. Moreover, despite its weaknesses, I believe that this theory throws some light on reality.

The Determination of Factor Shares

This note uses a simple model to explore Piketty's analysis of income dynamics. Apart from slight notational differences, this model is similar to that described by Piketty in his technical appendix[3]. The present model also makes an explicit allowance for variations in the market valuation of real assets and for technical progress. Technical progress is of the labour-

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[2] See especially Piketty (2014) pp. 353 to 358.

[3] See http://piketty.pse.ens.fr/files/capital21c/en/Piketty2014TechnicalAppendix.pdf, pages 37-39.

augmenting (Harrod-neutral) variety. This choice of technical progress is motivated by the desire to analyse balanced growth paths in which capital and output grow at the same rate. It is also supported by the evidence (Klump et al, 2007). In the economies that Piketty considers, net income from abroad has for most of the time been a small fraction of total income. Net income from abroad is assumed to be zero in our model.

Preliminary Remarks

Piketty uses the terms "capital" and "wealth" interchangeably to denote the total monetary value of shares, housing and other assets. "Income" is measured in money terms. We shall reserve the term "capital" for the totality of productive assets evaluated at constant prices. The term "output" is used to denote the totality of net output (value-added) measured at constant prices. Piketty uses the symbol β to denote the ratio of "wealth" to "income" and he denotes the share of wealth-owners in total income by α. In his theoretical analysis this share is equated to the share of profits in total output. Piketty documents how α and β have both risen by a considerable amount in recent decades. He argues that this is not mere correlation, but reflects a causal link. It is the rise in β which is responsible for the rise in α. To reach this conclusion, he first assumes that β is equal to the capital-output ratio K/Y, as conventionally understood. From his empirical finding that β has risen, he concludes that K/Y has also risen by a similar amount. According to the neoclassical theory of factor shares, an increase in K/Y will only lead to an increase in α when the elasticity of substitution between capital and labour σ is greater than unity. Piketty assumes this to be the case. Indeed, based on movements α and β, he estimates that σ is between 1.3 and 1.6[4]

Thus, Piketty's argument rests on two crucial assumptions: $\beta = K/Y$ and $\sigma > 1$. Once these assumptions are granted, the neoclassical theory of factor shares ensures that an

[4] Piketty (2014), chapter 6, page 221. Also, the online technical appendix page 39.

increase in β will lead to an increase in α. In fact, neither of these assumptions is supported by the empirical evidence which is surveyed briefly in the appendix. This evidence implies that the large observed rise in β in recent decades is not the result of a big rise in K/Y but is primarily a valuation effect.

The Model

Real output is given by the following CES production function:

$$(1) \qquad Y = \left[bK^{\frac{\sigma-1}{\sigma}} + (1-b)\left(Le^{\mu t}\right)^{\frac{\sigma-1}{\sigma}} \right]^{\frac{\sigma}{\sigma-1}}$$

where μ is the constant rate of labour-augmenting technical progress and $\sigma > 0$ is the constant elasticity of substitution between capital K and labour L. The parameter b is constant.

Following Piketty, assume that capital receives its marginal product. The rate of profit is thus:

$$(2) \qquad \pi = \frac{\partial Y}{\partial K}$$

which yields:

$$(3) \qquad \pi = b\left(\frac{K}{Y}\right)^{-\frac{1}{\sigma}}$$

The share of profits in output is given by:

$$(4) \qquad \alpha = \frac{\pi K}{Y} = b\left(\frac{K}{Y}\right)^{\frac{\sigma-1}{\sigma}}$$

Growth rates of the above variables satisfy the following equation:

(5) $$g_\alpha = \left(\frac{\sigma - 1}{\sigma}\right) g_{K/Y}$$

Thus, g_α and $g_{K/Y}$ have the same sign if σ > 1 and opposite signs if σ < 1. This is a standard neoclassical result.

Piketty

Piketty does not measure K/Y directly but takes as a proxy the ratio of wealth to income, where wealth is the total monetary value of shares, housing and other assets; income is measured in money terms. The inclusion of housing is questionable, since housing is not combined with labour in a production process in the same way as other types of capital. There is also the question of valuation. Taking produced goods as numeraire, let W be the market value of capital (stocks and shares, housing etc.) and define the valuation ratio as follows:

(6) $$v = \frac{W}{K}$$

In the case of quoted companies this is Tobin's Q.

Piketty's wealth to income ratio is given by:

(7) $$\beta = \frac{W}{Y} = \frac{vK}{Y}$$

Growth rates of the above variables satisfy the following equation:

(8) $$g_\beta = g_{K/Y} + g_v$$

In his explanation for the changing distribution of income Piketty finesses the issue of valuation by assuming, in effect, that $g_v = 0$ and hence that $g_{K/Y} = g_\beta$. Given his finding that β has increased by a great deal in recent decades, Piketty concludes that K/Y must have increased by a similar amount. However, evidence surveyed in the appendix indicates that K/Y has been falling since around 1981-2 in the United States and has been roughly constant in most of Europe. Indeed, this is just what Piketty and Zucman (2013) find when they correct the wealth-income ratio for valuation changes (capital gains)[5]. Piketty's tacit assumption that $g_v = 0$ is also at odds with his own evidence which documents the increase in the average valuation ratio of quoted companies (Tobin's Q) that has occurred since 1970[6].

The following is a plausible story, at least for the United States, where the capital-output ratio has fallen a great deal and thus $g_{K/Y} < 0$. Evidence reported in the appendix indicates that σ < 1. Suppose this is the case. Suppose also that $g_v > -g_{K/Y}$. Then, in line with Piketty's empirical findings, $g_\beta = g_{K/Y} + g_v > 0$. Given that σ < 1 and $g_{K/Y} < 0$, the neoclassical theory of factor shares implies that $g_\alpha > 0$, which is also in line with Piketty's empirical finding. In this example, the income share of wealth-owners is increasing because of a low rate of real capital formation and a falling capital-output ratio. However, the wealth-income ratio is increasing because of a rapid growth in asset prices. This story, it must be said, assumes that the neoclassical theory is correct. In particular, it assumes that capital receives its marginal product. If this assumption is incorrect, a different or more complex explanation for the rising income share of wealth-owners is required. Such an explanation might include the declining economic and political power of organised labour in most advanced economies. However, this would not preclude low real investment as a contributory factor behind the observed shift in income distribution.

Balanced Growth

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5 Piketty and Zucman (2013), appendix figure A133, available on-line at http://piketty.pse.ens.fr/en/capitalisback

6 See Piketty(2014), chapter 6, Figure 5.7 and his discussion on pages 187-191.

Assume that a constant fraction s of income is saved. The growth rate of the real capital stock is then given by:

(9) $$g_K = \frac{sY}{K}$$

Suppose that employment grows at the exogenous rate ℓ. With the assumed savings propensity the economy will converge to a balanced growth path on which capital and output grow at the same rate g, where:

(10) $$g = l + \mu$$

In his book, Piketty refers to g as the "structural growth rate of the economy", although elsewhere he uses the conventional term "natural growth rate" (Piketty and Zuckman, 2013, p.6).

Thus, on the balanced growth path:

(11) $$g_K = g_L = g$$

The capital-output rate is:

(12) $$\frac{K}{Y} = \frac{s}{g}$$

Thus:

(13) $$\pi = \left(\frac{s}{g}\right)^{\frac{1}{\sigma}}$$

(14) $$\pi - g = \left(\frac{s}{g}\right)^{\frac{1}{\sigma}} - g$$

(15) $$\frac{\pi K}{Y} = b\left(\frac{s}{g}\right)^{\frac{\sigma-1}{\sigma}}$$

Piketty lays considerable stress on the ratio s/g and the gap $\pi - g$ ($r - g$ in his notation). He argues that both s/g and $\pi - g$ will rise in the future due to a reduction in the natural growth rate g and possibly an increase in the savings propensity s due to the increasing concentration of wealth. The effect of this on the distribution of factor income depends on the elasticity of substitution σ. As can be seen from equation (15), the share of profits is an increasing function of s/g if σ >1 and a decreasing function if σ < 1. This is an important finding. Piketty assumes that σ >1. In this assumption is correct, a reduction in the natural growth rate g (or increase in s) will lead to a new balanced growth path on which the share of profits is higher than before. Conversely, if σ < 1, the share of profits will be lower than before.

A reduction in g or an increase in s will always cause $\pi - g$ to increase (see equation (14)). If $\sigma < 1$ the increase in $\pi - g$ will be accompanied by a reduction in the share of profits in total income. This finding puts a question mark over Piketty's stress on the gap $\pi - g$ as the primary source of inequality. It illustrates the central role that the elasticity of substitution plays in the long-run dynamics of Piketty's model. Note that whatever the value of σ, a higher value of s/g leads to a higher capital-output ratio and a lower profit rate.

An Alternative Savings Function

Piketty argues that there is too much capital accumulation because the owners of capital have plenty of income to save. This would suggest the use of an alternative savings function. Suppose there is no saving out of wages and that a constant fraction s_π of profits is saved[7]. Total saving, which equals total investment, is therefore $s_\pi \pi K$ and the growth rate of capital stock is given by:

[7] This point was made by David Soskice in a personal communication to the author.

(16) $$g_K = \frac{s_\pi \pi K}{K} = s_\pi \pi$$

This equation will yield convergence to a balanced growth path on which, as before, capital and output grow at the rate $g = 1 + \mu$. On this path the profit rate is:

(17) $$\pi = \frac{g}{s_\pi}$$

Hence:

(18) $$\pi - g = \frac{g}{s_\pi} - g$$

Equations (3) and (16) imply that the capital-output ratio is:

(19) $$\frac{K}{Y} = \left(\frac{b}{\pi}\right)^\sigma = \left(\frac{s_\pi b}{g}\right)^\sigma$$

The share of profits is:

(20) $$\frac{\pi K}{Y} = b^\sigma \left(\frac{s_\pi}{g}\right)^{\sigma-1}$$

The above equation implies that the profit share is an increasing function of s_π / g if $\sigma > 1$ and a decreasing function if $\sigma < 1$. In the previous example, using a different savings function, the profit share was an increasing function of s / g for $\sigma > 1$ and a decreasing function for $\sigma < 1$ (see equation 15). Changing the savings function does not alter the long-run growth rate or the qualitative results regarding the capital-output ratio, the rate of profit or the profit share.

Workers' Savings

The above analysis can be extended as follows. Suppose there are two social classes: workers and capitalists. The latter do not work and live entirely on their income from profits.

Workers save a constant fraction s_w of their income and capitalists save a constant fraction s_c.

There is no capital appreciation. Workers and capitalists receive rates of return π_w and π_c respectively, where

(21) $$\pi_c = m\pi_w$$

and m is constant. Output is determined by the production function given in equation (1). On average factors receive their marginal products, so the average rate of profit π is given by equation (3).

Using an obvious notation, the profits of workers and capitalists are given by:

(22) $$\begin{aligned} \Pi_w &= \pi_w K_w \\ \Pi_c &= \pi_c K_c \end{aligned}$$

Aggregates are given by:

(23) $$\begin{aligned} \Pi &= \Pi_w + \Pi_c \\ K &= K_w + K_c \end{aligned}$$

The total income of workers is equal to $Y - \Pi_c$ and the savings of each group are therefore as follows:

(24) $$\begin{aligned} S_w &= s_w(Y - \Pi_c) \\ S_c &= s_c \Pi_c \end{aligned}$$

The growth rates of the capital owned by the two groups are given by:

(25) $$\begin{aligned} g_{K_w} &= \frac{S_w}{K_w} \\ g_{K_c} &= \frac{S_c}{K_c} \end{aligned}$$

Suppose that on the balanced growth path workers own a constant fraction of the capital stock. This implies that $g_{K_w} = g_{K_c}$. When this condition is satisfied:

(26) $$\frac{S_w}{K_w} = \frac{S_c}{K_c} = \frac{s_c\Pi_c}{K_c} = s_c\pi_c = s_c m\pi_w = \frac{s_c m\Pi_w}{K_w}$$

Thus

(27) $$\begin{aligned} S_w &= s_c m\Pi_w \\ S &= S_w + S_\pi = s_c m\Pi_w + s_c\Pi_c \end{aligned}$$

Since $\Pi = \Pi_w + \Pi_c$ it follows that:

(28) $$\begin{aligned} S &= \tilde{s}_\pi\Pi \\ g_K &= \frac{S}{K} = \frac{\tilde{s}_\pi\Pi}{K} = \tilde{s}_\pi\pi \end{aligned}$$

where

(29) $$\tilde{s}_\pi = s_c\left(1 + (m-1)\frac{\Pi_w}{\Pi}\right) = \frac{s_c m}{m - (m-1)\left(\dfrac{K_w}{K}\right)}$$

Workers and capitalists receive the same rates of return on their investments if $m = 1$. In this case $\tilde{s}_\pi = s_c$ and we obtain the result of Pasinetti (1962) that $S = s_c\Pi$.

On a balanced growth path of the type considered above, capital and output grow at the same exogenous rate $g\,(= 1 + \mu)$. From (28) it follows that:

(30) $$\pi = \frac{g}{\tilde{s}_\pi}$$

For a given value of $m > 1$, a larger value of the ratio K_w / K implies a larger value of $\tilde{s}_\pi$ and hence a lower average rate of profit π. The value of K_w / K is path dependent and depends on the starting point of the trajectory towards balanced growth.

Capital Appreciation

The consumption of wealth-owners may be influenced by the gains they make from capital appreciation. For example, a landlord may increase his consumption out of rental income because of the capital gain he is making from rising house prices. In aggregate, capital gains are assumed to be unrealised. This ensures that the consumption of wealth-owners cannot exceed their current income from profits[8]. When such gains are included, the real rate of return on wealth is given by:

$$(31) \qquad r = \frac{\pi K + \frac{dv}{dt}K}{vK}$$

Hence:

$$(32) \qquad r = \frac{\pi}{v} + g_v$$

where g_v is the growth rate of v.

Suppose that workers do not save and that wealth-owners consume a constant fraction $1 - s_r$ of their real income including capital appreciation. Consumption by wealth-owners is then equal to $(1 - s_r)rW = (1 - s_r)rvK$. Subtracting this amount from the real profit flow πK yields the following expression for the real savings to be invested in additional capital stock:

$$(33) \qquad \begin{aligned} S &= \pi K - (1 - s_r)rvK \\ &= \pi K - (1 - s_r)\left(\frac{\pi}{v} + g_v\right)vK \\ &= \left(s_r\pi - (1 - s_r)g_v v\right)K \end{aligned}$$

Dividing by K yields:

$$(34) \qquad g_K = s_r\pi - (1 - s_r)g_v v$$

[8] Wealth-owners could in aggregate realise some of their capital gains by selling some of their capital assets to workers. This possibility is ruled-out by our assumption that workers do not save (see below).

The assumption that in aggregate capital gains are not realised ensures that $S \geq 0$ and hence $g_K \geq 0$. If g_v is positive, the final term indicates that real investment is reduced because wealth-owners are consuming more as a result of capital appreciation. Their real wealth is increasing because of rising asset prices and they have less need to save out of their current income (profits).

Suppose that employment grows at the exogenous rate l. The growth rate of output is then:

(35) $$g_Y = \alpha g_K + (1-\alpha)g$$

where $g = l + \mu$ is the natural growth rate. The capital-output ratio grows at the following rate:

(36) $$g_{K/Y} = (1-\alpha)(g_K - g)$$

This ratio will fall through time if $g_K < g$. Equation (34) implies that this will occur when:

(37) $$s_r\pi - g < (1-s_r)g_v v$$

Piketty's wealth-income ratio is β = W/Y = vK/Y which has growth rate:

(38) $$\begin{aligned} g_\beta &= g_{K/Y} + g_v \\ &= (1-\alpha)(s_r\pi - (1-s_r)g_v v - g) + g_v \\ &= (1-\alpha)(s_r\pi - g) + \left[1-(1-\alpha)(1-s_r)v\right]g_v \end{aligned}$$

The above growth rate is positive if:

(39) $$s_r\pi - g > (1-s_r)vg_v - \frac{g_v}{1-\alpha}$$

The condition for the two inequalities $g_{K/Y} < 0$ and $g_\beta > 0$ to hold simultaneously is

$$(40) \qquad (1-s_r)vg_v - \frac{g_v}{1-\alpha} < s_r\pi - g < (1-s_r)vg_v$$

As always:

$$(41) \qquad g_\alpha = \left(\frac{\sigma-1}{\sigma}\right) g_{K/Y}$$

If σ < 1 and the inequalities (40) are satisfied, the capital-output ratio will fall in the course of time and the share of wealth-owners in total income will rise. However, the capital-output ratio will fall because there is so little real investment. Because of capital appreciation, wealth-owners are able to enjoy a high level of consumption and at the same time see their wealth growing faster than total income. This is a fair description of what has happened in a number of countries.

Conclusions

Piketty argues that the higher income share of wealth-owners is due to an increase in the capital-output ratio resulting from a high rate of capital accumulation. The evidence suggests just the contrary. The capital-output ratio, as conventionally measured has either fallen or been constant in recent decades. The apparent increase in the capital-output ratio identified by Piketty is a valuation effect reflecting a disproportionate increase in the market value of certain assets. A more plausible explanation for the increased income share of wealth-owners is an unduly low rate of investment in real capital. These alternative explanations may have distinct policy implications which it is beyond the scope of this paper to explore.

Piketty makes a great deal of the gap $\pi - g$ and the ratio s/g. He argues that g is likely to fall in the future because of decelerating population and productivity growth. The result will be an increase in both $\pi - g$ and s/g. He concludes that these changes will be accompanied by an increase in the wealth to income ratio (capital-output ratio). This in turn will encourage the concentration of wealth and promote the rise of a rentier class living on inherited wealth. These conclusions are probably correct. However, this leaves open the question of factor shares. The share of profits in total income may rise or fall depending on the elasticity of substitution between capital and labour. If $\sigma < 1$ the profit share will decline despite a rising ratio of wealth to income.

Appendix

Valuation

For any group of assets define the valuation ratio v as follows:

$$v = \frac{\text{total market value of assets}}{\text{total replacement cost of assets}}$$

In the case of quoted companies, this ratio is usually known as Tobin's Q, although in fact the term valuation ratio was earlier coined by Marris (1964).

Suppose that "real" capital K is measured in such a way that, for the whole economy or for the private sector as a whole, its unit replacement cost is on average equal to the unit price of real output Y. Then:

$$\beta = \frac{W}{Y} = \frac{vK}{Y}$$

By assuming that $\beta = K/Y$, Piketty is, in effect, assuming that $v = 1$. Casual observation suggests that this is not true for house prices, which have risen much faster than building costs in many countries due to rising land values. Using data from Canada, France, the United States and the United Kingdom, Bonnet et al (2014) show that the increase identified by Piketty was mainly due to the rapid growth in house prices. Preliminary estimates by Bill Martin confirm this finding for the UK[9]. Note that when Piketty and Zucman simulate the effect of excluding capital gains, they find that the adjusted private wealth-income ratio for the United States falls almost continuously over the period 1982 - 2010 and remained virtually flat for a weighted group of European counties[10]. Estimates by Klump et al (2014) of the conventional capital-output ratio for these countries reveal a similar picture. Estimates by Thwaites (2014) of the real capital to gross value-added ratio for an average of 11 industrialised countries indicate that this ratio fell up to the mid-nineteen seventies and since then has been more or less flat.

The combination of a rising β and a falling or stationary K/Y implies that the valuation ratio v must have been increasing.

Elasticity of Substitution

On page 221, Piketty claims that on the basis of historical data one can infer that σ lies between 1.3 and 1.6. However, this inference is unreliable because it is based on the assumption that $K/Y = \beta$. Conventional measures of K/Y typically yield values of σ that are much lower than 1.

Rowthorn (1996) and Rowthorn (1999) report the results of 33 econometric studies which estimate the value of σ, or from which estimates of this parameter can be derived. Most of these studies contain a variety of estimates referring to different industries, regions or countries, or to alternative equation specifications. Their findings are summarised by means

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[9] Piketty estimates that the UK ratio of private wealth to income rose by 69% between 1970 and 2010 (on-line technical appendix table S3.1). When adjusted for changes in the relative price of housing, the increase was 24% (personal communication from Bill Martin to the author).

[10] Piketty and Zucman (2013), appendix figure A133, available on-line at http://piketty.pse.ens.fr/en/capitalisback

of employment-weighted averages or medians. Out of a total of 33 studies, in only 7 cases does the summary value exceed 0.8, and the overall median of the summary values (median of the medians) is equal to 0.58. A more recent survey by Klump et al (2007) reports similar findings for aggregate elasticities. These authors' own estimates for the private non-housing sector imply elasticities in the range 0.60-0.67 in both the United States and the Eurozone. A survey by Chirinko (2008) concludes “While some estimates of σ are above one, the weight of the evidence suggests that σ lies in the range between 0.40 and 0.60”. Allowing for biased technical change, Antràs (2004, p. 26) concludes that for the United States σ "is likely to be considerably below one, and may even be lower than 0.5". Allowing for mark-up pricing, Raurich et al (2011) estimate an elasticity of 0.63 for the United States. Using firm-level data, Barnes et al (2008) find a long-run elasticity of 0.4 for the UK. Using data for New Zealand, Tipper (2012) obtains mostly low elasticities for individual industries and estimates the aggregate elasticity to be in the region of 0.8.The latter estimate is not statistically significantly different from unity. Using data for the United States, Balistreri et al (2002) find a wide variety of long run elasticities of substitution at the industry level, with a median of around 1. Allowing for changes in the relative price of investment goods, Karabarbounis, L. and B. Neiman (2014) estimate the elasticity of substitution in a large sample of countries to be in the region of 1.26.

An interesting light has been shed on the above estimates in a recent paper by Matthew Rognlie (2015). These estimates refer to the gross elasticity of substitution which relates variations in the gross profit share (i.e. including depreciation) to variations in the gross capital stock. Rognlie argues that this method is inappropriate for explaining the distribution of net income which is Piketty’s concern. The correct approach is to use the net elasticity of substitution. The net elasticity compares variations in the net profit share (i.e.

excluding depreciation) to variations in the net capital stock. The net elasticity of substitution is typically smaller than the gross elasticity. Given that most estimates of the gross elasticity are less than unity, this suggests that the net elasticity is considerably less than unity. This reinforces the argument against Piketty's explanation for the falling share of labour in national income.

Bibliography

Antràs, P. (2004). "Is the US Aggregate Production Function Cobb--Douglas? New Estimates of the Elasticity of Substitution", *Contributions to Macroeconomics*, 4(1), Article 4.

Balistreri, E. J., McDaniel, C. A. and Wong, E. V. (2001). "An Estimation of U.S. Industry-Level Capital-Labor Substitution Elasticities: Cobb-Douglas as a Reasonable Starting Point?", Office of Economics Working Paper No. 2001-12-A, US International Trade Commission.

Barnes, S., Price, S. and Barriel, M. S. (2008). "The elasticity of substitution: evidence from a UK firm-level data set", Bank of England Working Paper No. 348, April

Bonnet, H., Bono, P-H, Chapelle, G. and Wasmer, E. (2014). "Le capital logement contribue-t-il aux inégalités ? Retour sur le capital au XXIe siècle de Thomas Piketty", LIEPP Working Paper no. 25, April

Chirinko, R. S. (2008), "σ: The long and short of it", *Journal of Macroeconomics* 30(2), 671-686.

Karabarbounis, L. and B. Neiman (2014). The global decline of the labor share. The Quarterly Journal of Economics 129(1), 61–103.

Klump, R., McAdam, P. and Willman, A. (2007). "The long-term sucCESs of the neoclassical growth model", *Oxford Review of Economic Policy*, Volume 23, Number 1, 2007, pp.94-114

Marris, R., L. (2004), *The Economic Theory of Managerial Capitalism*, London, MacMillan.

Pasinetti, L., L. (1962), "Rate of Profit and Income Distribution in Relation to the Rate of Economic Growth", *The Review of Economic Studies,* Vol. 29, No. 4, October, pp. 267-279

Piketty, T. and Zucman, G. (2013). "Capital is Back: Wealth-Income Ratios in Rich Countries 1700-2010", http://piketty.pse.ens.fr/files/PikettyZucman2013WP.pdf

Piketty , T. (2014), *Capital in the Twenty First Century*, Harvard University Press, Cambridge, Mass.

Raurich, X., Sala, H. and Sorolla V. (2011). "Factor Shares, the Price Mark-up, and the Elasticity of Substitution between Capital and Labor", IZA DP 5992, September.

Ronglie, M. (2015), "Deciphering the fall and rise in the net capital share", Brookings Papers on Economic Activity, Conference Draft, March 19-20.

http://www.brookings.edu/~/media/Projects/BPEA/Spring-2015/2015a_rognlie.pdf?la=en

Rowthorn, R. E. (1996). `Unemployment, Wage Bargaining and Capital--Labour Substitution', Centre for Business Research, University of Cambridge, Working Paper no. 38.

Rowthorn, R. E. (1999). "Unemployment, Wage Bargaining and Capital-Labour Substitution", *Cambridge Journal of Economics,* vol. 23, issue 4, pp 413-25.

Rowthorn, R. E. (2014). “A Note on Thomas Piketty’s *Capital in the Twenty First Century*”, *Cambridge Journal of Economics*, vol. 38, issue 5, pp.1275-1284.

Thwaites, G. (2014), “Unbalanced growth, secular stagnation and the relative price of investment goods”, mimeo.

Tipper, A. (2012). "Capital-labour substitution elasticities in New Zealand: one for all industries?" Statistics New Zealand Working Paper No 12--01

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Globalization: Evolution of the Capitalist Market Economy Through "Internalization of the Market"

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Abstract:

The purpose of this article is to theoretically explain and understand globalization in the course of evolution of capitalist market economy through "internalization of the market."
Globalization can be visually depicted as a simultaneous process of expansion of Market and reduction of State and Community. The ultimate destination of globalization is free investment capitalism with ubiquitousness of Marx's fictitious capital and Becker's human capital. Differentiating two tendencies in globalization, "extensive expansion of market" and "intensive deepening of market", we elaborate how the latter tendency proceeds. Based on the view of exogenous market of Marx and Hicks, three modes of commodification - external (E mode), internal (I Mode) and general (G mode) - are identified with different degree of economic integration by the market. They take place successively in internalization of the market. Using the concepts, capitalist economy is defined as the combination of G mode commodification of general goods and E mode commodification of labour-power. We analyze the transition of three modes of capitalist economy by using the simple models of corn and labour-power and have found out that the real wage would tend to increase and the uniform rate of profit would tend to decrease as the capitalist economy advances its degree of commodification of labour-power from E Mode to I Mode and to G Mode. Most advanced G Mode capitalist economy can self-activate by countering the falling rate of profit by introducing products innovation either in corn or labour-power sector.

Contents

10. The replicators of free investment capitalism and fictitious capital as the ultimate model of globalization

1. Extensive expansion and intensive deepening of market in a tendency of globalization

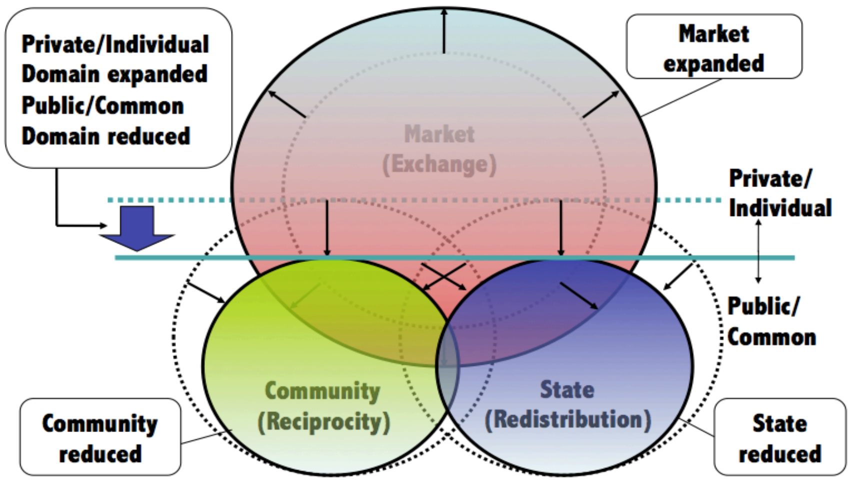
The purpose of this article is to theoretically explain and understand globalization. Economic globalization accelerated in the 1990s. Its positive and negative effects have been widely discussed. Globalization is a tendency approaching toward a single global-scale free market, which accompanies the development of transportation technology, information communication technology (ICTs) and the expansion of finance. Adding different names to K. Polanyi's (Polanyi, K. 1944) three modes of socioeconomic integration such as Market (monetary exchange), State (redistribution) and Community (reciprocity), globalization can be visually depicted as a simultaneous process of expansion of Market and reduction of State and Community (Figure 1).

In this article, geographical expansion across the globe and the market size for existing commodities is called the "extensive expansion of market," and the tendency where public or common free goods and services are somehow privatized and sold as private goods and services for the purpose of monetary interest, i.e. as commodities, is called the "intensive deepening of market." The idea of "intensive deepening of market" will be elaborated more clearly in relation to advancement of modes of commodification.

But its meaning should be understood so wide as to include not only a shift in the method of economic coordination from redistribution by a state or reciprocity in a community to monetary transaction of buying and selling in a market, but also product innovation by which new commodities are developed and sold in a market. In fact, in capitalist market economy, commodification and innovation constantly replace Community and State with Market. Although the extensive expansion and the intensive deepening of market occur simultaneously in globalization, we need to recognize them as two separate processes at different levels of abstraction. The "extensive expansion of market" is a surface and concrete tendency, which is generally easy to observe and understand. The "intensive deepening of market," on the other hand, must be so abstract and difficult to quantitatively comprehend.

Freedom in a market is divided into "freedom of trade" and "freedom of investment," though both belong to "passive freedom." The latter refers to such freedom that investors can trade any future opportunity of profit/income by using money. The latter needs to presuppose the former because investment can be only conceivable using the concept of trade. So "freedom of investment" is the freedom of a higher level of abstraction. Thus, it is one of the aspects of intensive deepening of market that freedom/liberty in the market takes it to a higher level of abstraction, from the expansion of choice in the market for consumed goods to the expansion of choice in the market for profit/income opportunity.

Figure 1: Globalization



2. Free investment capitalism: ubiquitous fictitious capital

Globalization's ultimate destination is "free investment capitalism." It has the following aspects: 1) individuals and families provide firms with human capital accumulated through education and training and receive profit for the "fictitious capital"; 2) all the goods and services including labour-power become a commodity to be created (innovated) and produced for the purpose of profit making; 3) all the profit organizations create and produce such a commodity, utilizing monetary capital, physical capital and human capital; 4) all the profit organizations, for the purpose of equity financing, sell "fictitious capital" called "financial products" as stock and bond, which are the right to claim profit/income in the future (commodification of capital); and 5) since investment in physical capital and fictitious capital is based on profitability, human beings, goods and money move around globally, seeking higher profitability.

In Chapter 29 of *Capital* "Banking Capital's Component Parts", Marx called, on the one hand, such capital with real entities as physical means of production including machines and factories as well as labourers and functions in production "real capital" and, on the other, stocks and bonds, which are merely "accumulated claims, or legal titles, to future production," "fictitious capital." (Marx 1895=1981, p. 599) In this chapter, Marx pointed out that the value of "bonds (the state's promissory note)" as fictitious capital can be obtained by calculating the sum of the streams of discounted present value of expected future profit. Such a method is capitalization. "The formation of fictitious capital is called capitalization. Every periodic income is capitalized by calculating it on the basis of the average rate of interest, as an income which would be realized by a capital loaned at this rate of interest, as an income which would be realized by capital loaned at this rate of interest." (Marx *ibid*., p. 598)

If we define fictitious capital in a more general manner, it is a bundle of various kinds of claims. Financial derivatives like futures, options and swaps can all be considered to be "fictitious capital" as a bundle of claims. For example, an option trades a package of right to buy (call) or to sell (put) underlying an asset (stock, bond or stock index) by the expiration date and their prices constantly fluctuate. As far as fictitious capital is information as a bundle of claims, it is easy to trade the information digitalized on the Internet. Thus, free investment as the virtual destination of globalization is the world where fictitious capital is ubiquitous.

It should be noted that free investment capitalism is not the same as the "self-regulating market" suggested by Karl Polanyi in his *The Great Transformation*. Several historical conditions after the 18th century enabled labour, land and money, which were not commodities produced to be sold, to turn into objects of trade as "fictitious commodities," and a self-regulating market came into being in the industrial capitalism of 19th century (Polanyi, K. 1944). "Fictitious capital" refers to "capitalist commodities" ("the general commodification" of labour-power that we will discuss below) produced for profit, which presupposes the system of the "fictitious commodity" whereby labour-power is produced for sale.

Therefore, the problem of free investment capitalism is not with Polanyi's "fictitious commodity" but with Marx's "fictitious capital." For, in free investment capitalism, any goods and services, including labour-power once regarded as a simple commodity, come to be traded as an "income opportunity," that is, as "fictitious capital." If we can assume comparable alternative opportunities, the conception of "fictitious capital" has the versatility to easily expand to other categories than money. For example, when we imagine that "there should be another place or job to earn more income," we are unconsciously evaluating the current situation as having negative fictitious capital. Thus, negative fictitious capital could also exist. It's not only gold, money, machine, factory, raw material or land; any event, activity and situation can emerge in the form of fictitious capital. Ubiquitous fictitious capital as a replicator is very characteristic of free investment capitalism as the destination of globalization. This is how capitalism purifies itself.

The tendency to evaluate everything through the logic of fictitious capital has deeply penetrated our daily life. Globalization has a serious impact not only on economy but also on our society and ethics. It is because of this tendency for intensive deepening of the market that we shift from "fictitious commodity" to "fictitious capital."

3. Market penetration into schools: the spread of a social institution of education as "human capital investment"

In the first place, we will quickly review how education has turned into fictitious capital based on an idea proposed by Becker's *Human Capital* (Becker 1964). According to Becker, education is for a student to accumulate human capital by investing monetary spent as well as the opportunity cost of time and acquiring specialized knowledge or technique. Its purpose is to increase the value of his/her own human capital and income flow (income gain) expected to earn throughout the future.

Once education is considered to be "human capital" investment, whether investment on education should be made is determined by comparing the present value of education's expected income with the education cost. "The present value of education's expected income" here refers to the summation of the streams (a series of numbers earned every year) of the present value of the expected income increase discounted by a given interest rate. For example, suppose someone will work for forty years after graduating from a college and the salary for a college graduate is higher than that for a high school graduate by a million yen per year. Assuming that the long-term interest rate as a discount rate is at the super low level of 1%, the discounted present value (DPV) of the expected income from college education is calculated as follows:

$$DPV = \sum_{i=1}^{40} \frac{1,000,000}{(1+0.01)^i} = 100,000,000 - \frac{100,000,000}{(1+0.01)^{40}} \approx 32,830,000$$

Therefore, as long as the current education cost is less than 32.83 million yen, the discounted present value of the expected income exceeds the cost. Therefore, this human capital investment can expect income. It is an application of the idea of the present value of expected income for bonds or real estate to education. The present value of human capital is the capitalized expected income flow (expected income increase) by a discounted rate (interest rate). If the value of human capital calculated in such a way exceeds the sum of the education cost and the interest payment of education loan, human capital investment on the education will have a positive net present value and therefore it is feasible.

Whether or not education should be regarded as investment for more monetary earnings provokes an important social issue. There is much room for discussion over what meaning education has or should have for human beings, but, clearly, this is not a matter for individual moral or ethical judgment but a problem on institution as socially shared rules. If the view of education as "human capital investment" is socially shared, as long as we follow the social rule, we can enjoy the benefit without being blamed by others. Although the concept of human capital initially invited strong resistance, it came to be widely accepted over past decades and it is now a widely established rule. It is not only the case of an external institution such as school education, specialized education, finding a job and education loan; it is also an internal institution like people's ways of thinking or values[1].

From the perspective of human capital, a student is not a consumer of education services but an investor who invests in himself rationally considering future income[2]. Such a viewpoint of investment has become applied not only to education but also to anything from job training, information, health and domestic labour. In the cases of information search and acquisition, health promotion, reduction of domestic labour, there is a tendency to make an investment decision considering only cost and benefit. For instance, the increasing number of single-person households as well as "parasite singles," who live in their parent's house, can be explained by the idea that marriage or living alone separately from the family is not a favorable investment. Behind the declining birth rate is a change in parent's temporal world - they place higher priority on their own time and regard lost income by raising child as an opportunity cost.

Giving a birth, raising children, domestic labour and caring for old people are considered to be not only a "pain or trouble" that does not earn monetary income, but also loss of the benefits of income as being out of the job market incurs an opportunity cost. Therefore, these are avoided. Application of fictitious capital by the theory of human capital and opportunity cost to any field makes us regard all human being's choices or actions as rational investment and eventually blurs even the distinction between production and consumption.

When the theory of human capital by Mincer (1958) and Becker (1964) came out from Chicago School several decades ago only to be harshly criticized in both the academic and real worlds, we were able to flatly decline it as a fairy tale made up by unrealistic economists. However, it is no longer the case because we see the increasing number of phenomena that the theory of human capital and opportunity cost can well explain, and that the conception of human actions as investment has deeply penetrated our society. The penetration of investors or capitalists' thoughts into markets indicates the relative decline of the opposing principles of a community or state. However absurd it may look, once people start believing, make choices and take actions following this theory, what the theory preaches will be fulfilled accordingly. If we call it "self-fulfillment of a theory," a theory of human capital is equipped with this feature.

The cultural and ethical problems that we now face are not directly caused by undermining discipline, dilution of a sense of morality and belonging, or a change in values and norms. Although they are indirectly affected, these are the effects, not the cause. The cause is the change in economic reality, which brings about a shift in a topological boundary between market and non-market – a shrinking and dilution of the non-market domain (community or state) by expansion and deepening of the market. Although the shift in the domain of market and non-market mediates individuals' sense or recognition, e.g., what should be considered to be an object of production or consumption or income opportunity, it is not a change of values and norms unrelated to economic motivation. Cultural and ethical problems are fundamentally related to economic issues through institutions as socially shared rules concerning freedom and responsibility in the market.

4. Other views on the internalization of the market: Marx and Hicks

Internalization of the market is a historical tendency whereby the market, as a network of commodity trades by way of money, initially emerges outside or between communities, then expands and deepens. At this stage, globalization can be seen as the gradual manifestation of an innate tendency for internalization of the market through commodification and capitalization

This conception leads to a position of the "exogenous theory of market" which insists that markets emerge not from within but from without communities. Marx repeats that "exchange of commodity" (commodity trades by money) take places between communities, reflectively penetrate communities and dissolve conventional community-like relations[3]. Markets takes place outside or between communities and it penetrates communities – the market is internalized. Through this process, the market dissolves an economy reproduced through the principles of economic integration suggested by K. Polanyi such as reciprocity (symmetry) or redistribution (centrality) and reorganizes itself by uncontrolled free price trade (integral exchange) using money. The process, by which money taking place between communities transforms and dissolves substantive economic processes and reorganizes them by a formal exchange relation, is nothing but a historical process that allowed capitalist economy to emerge out of market economy. However, it has been conventionally believed that such a historical process cannot be theoretically analyzed.

Hicks, although he himself was one of the founders of general equilibrium theory, questioned the very theory himself and published a book of self-criticism in his later years, *A Theory of Economic History*. In 1972, Hicks won the Nobel Prize in economics for his work on general equilibrium analysis, but he allegedly praised *A Theory of Economic History* more than *Value and Capital*, the work he won the prize for (Morishima 1994).

In Chapter 3 of *A Theory of Economic History*, Hicks mentions that "the rise of the market" or "the rise of the exchange economy" - how market has been developed - is the central issue. The reason why Hicks began his discussion not from "the rise of capitalism" but from "the rise of the market" is that he tried to grasp capitalism centrally from the aspect of circulation and commerce, not from Marx's historical materialism that explains transition of the modes of production the interplay between the relation of production and force of production (Sakai 2010). Marx surely put his emphasis on the significance of production in capitalist economy. Nevertheless, as we have seen above, he also had a clear-cut vision of the rise and penetration of a commodity economy.

A Japanese economist Kozo Uno, in order to restructure the whole system of political economy, has reinterpreted Marx's three volumes of *Capital* (Marx, 1867, 1885, 1894), taking special note of Marx's view of exogenous market and autonomous development of circulation and commerce independent of production. He thus presented the grand system of political economy with three levels that consists of 1) the pure theory of capitalist economy (Uno, 1980), 2) the theory of economic policy on the three stages of capitalist development, *viz.* mercantilism, liberalism and imperialism and 3) analysis of present states. Such his followers as T. Sekine (Sekine, 1985) and M. Itoh (Ito, 1988) elaborated the pure theory of capitalist economy to make it more consistent and coherent from the different angles. However, modes of commodification for internalization of the market that the present article explains as the inner logic of evolution of market economy and capitalist economy, in contrast with the chronological description of capitalist development of capitalism in Uno's theory of economic policy, has never been discovered nor explored.

According to Hicks, the "primitive non-market economy" consists of a "custom economy" and an imperialistic and militaristic "command economy." This seems to be a rephrasing of Polanyi's Community (reciprocity) and State (redistribution) from a slightly different perspective. But, compared with Polanyi's, Hicks' argument from the view of an economist is unique in that he provided insight into "merchant" and "market" through the problem of "the rise of the market." For Hicks, there are two kinds of markets: a) "flexprice market" where price is determined by demand and supply; and b) "fixprice market" in which producers or bureaucrats set prices. Then a) flexprice market consists of: a.1) "organized market (auction market); and a.2) unorganized market (market mediated by merchants). "Organized market" is a market that is ruled by general equilibrium theory where auctioneers move prices so as to reach the equilibrium of supply and demand at which price is determined. On the other hand, an "unorganized market" is a market where merchants set prices that fluctuate under the influences of the interplay by demand and supply[4]. This is the dominant and realistic market throughout most of history. Thus, Hicks clearly admits that the type of market he analyzed in general equilibrium theory is neither dominant nor realistic. This is Hicks' insight as well as self-criticism of his own past work on general equilibrium theory.

Hicks, having classified markets as above, treats human history revolving around the development of a "mercantile economy" with unorganized markets where merchant mediators set prices. The development of mercantile economy or "market penetration" is divided into the following three phases.

In the first phase, a social gathering like a religious festival provides trade opportunities. Thanksgiving festival of harvest turns into market in a rural village and rich farmers who conduct multilateral exchanges as mediators become a specialized merchant who stores and supervises commodities in market. At this point, the difference is still small between handicraftsmen who resell their own products after they add some unique processes of work to what they bought and merchants who buy goods and simply resell them. On the other hand, a manufacturer was a specialized kind of merchant. A steward represented the merchant's function as a king's servant and became a patent merchant. It is because law was not established in a traditional society to protect properties and contracts. But an Open and Mercantile Economy develops based on the system of "city states" seen as the Phoenicians, the Greeks, the Mediaeval Italians (Amalfi, Pisa, Genoa, Venice, Florence), Hansa towns of the North Sea and the Baltic, which accompanies guild and zunft as well as military power. Hicks says "mercantile communities were being built up in an environment which was substantially (or at least relatively) non-mercantile. The line between the Mercantile Economy and its environment was rather sharp."

In the Middle Phase, commercial centers are established with the protection of nation-states and "market penetration" ("the formerly non-mercantile environment is open, in a variety of ways, to penetration by the market") comes to appear in the monetary/financial system or legal system. The "limited liability company" was also established as a partnership system that goes back to Rome.

In the third Modern Phase, the development of a mercantile economy reached its peak and market economy came to be dominant. In modern times, industry has large fixed capital such as machinery, and the gap between commerce and industry became wider. Thus, as industrialization progresses through the industrial revolution, although productivity increased, increases of real wages lagged behind. This is because it was not until continuous occurrence of technological innovation lowered the production cost of fixed capital that economy growth was enabled, the industrial reserve army was absorbed so that real wages could increase.

To sum up, Hicks thinks that a mercantile economy, i.e., market, emerged and developed out of "city states," except some patent merchants, which had different and particular characteristics from traditional community societies, industry developed at the last stage of development of commercial economy, and labourers' standard of living improved thereafter. Since he also mentions that the border between "commercial economy" and its surroundings was clear, Hicks took his position from the "exogenous theory of market." Hicks, although he classified the patterns of "market penetration" or "development of a mercantile economy", only categorized them using the facts of "economic history." He did not try to abstract the logic of "penetration" or "development" out of the historical facts to develop a theory. While sharing his position on the "exogenous theory of market," I will try to abstract more and theorize it.

5. Three modes of commodification in internalization of the market

Let us now recall Polanyi's three forms of economic integration: Market (exchange), Community (reciprocity) and State (redistribution). A traditional society founded on a community or a state is reproduced by reciprocity (custom/tradition) or redistribution (command) and supported by its value norm or morality (the mutuality principle, the status principle) that makes it possible. Markets, while emerging outside or on a border of a community or state (empire), reflexively penetrate it, by replacing the norm/moral with the principle of equivalence, dissolve a traditional human association and reorganize an economic society by the rule of the market, a prohibitive rule on properties or trades that defines the market. In so doing, capital expands and deepens the market through profit-seeking activities and gradually replaces the principles of redistribution by a state and reciprocity by a community with the principle of commodity trade (monetary commodity exchange). As a result, an overall economic society is reorganized as a market economy and capitalist market economy comes into being. Thus, the process whereby markets emerging between communities or states dissolve substantive economy and reorganize it through exchange relations is nothing but a historical process where capitalist economy emerges out of the rise and development of market economy and evolves even further. In order to logically explain the intensive deepening of market, I will call the process "internalization of the market": a process in which forms of circulation or of capital deriving from commodity relations penetrate non-market societies and integrate economy in a self-organizing manner.

Table 1: Three modes of commodification in the internalization of the market

	Modes of commodification	Place of commodification	Purpose of production	Frequency of monetary exchange	Degree of economic integration by Market
Ⅰ	External commodification	Outside of Community and Sate	Consumption	Casual	Low
Ⅱ	Internal commodification	Inside of Community and State	Income	Frequent	Middle
Ⅲ	General commodification	Disappearance of Community and State	Profit	Constant	High

The process, where markets or monetary exchange relations formed as external relations of a community or state integrate the reproduction system of substantive economy through production and consumption of goods and services, progresses in the following order: I) external commodification; II) internal commodification; and III) general commodification. Table 1 shows three modes of commodification in internalization of the market. In the case where normal goods except labour-power/land as fictitious commodities-to-be (hereafter "general goods") are commodified, the differences between the commodification modes are indicated in terms of the place and purpose for which general goods are commodified as well as the frequency of the commodity trade using money. As the mode of commodification progresses from I to II to III, the degree to which the market dominates and integrates substantive economy increases. Thus, "internalization of the market" is a model of economic evolution for coherently explaining the tendency of intensive deepening of the market.

Historically, a certain set of rules (custom, value and law) is necessary to enable rice, salt, slave or pasture to become a commodity, and those rules vary depending on time and place. These rules for commodification are "replicators (genes)" that determine the properties of the market economy. Since communities, groups and individuals interact with one another while they accept, recognize, judge and act on those rules, such agents are called "interactors". Each mode of commodification inserts unique changes to a replicator of market. Internalization of market can be interpreted as a process in which replicators of different markets successively create. Capitalist market economy is a market economy equipped with more peculiar replicators, where three replicators of internalization of the market are nested. In the following discussion, market refers to a distributed type of market according to the law of many prices, and market economy refers to a loosely connected network of those markets.

External commodification: within a community, external nature such as land and internal nature like labour are ecologically reproduced, and general goods are reproduced by mediation of internal/local reciprocal exchange and redistribution. Between communities, on the other hand, price setting markets exist to globally connect such local reciprocal exchanges and redistribution and establish approximate equivalent exchanges[5].

External commodification is a process where market relations casually and sporadically take place and expand outside a non-market society. General goods (G) initially produced for domestic or communal consumption are brought to market outside the reciprocal/ redistribution domains and sold as a commodity (C), i.e., the object of trade for money (*M*) (Figure 2). This is illustrated as a scheme, $G \rightarrow C - M - C'$. Here "→" refers to transformation of general goods, *G*, into commodity, *C*. Let us consider the case, as an example, where there is casual surplus of rice or spice originally produced for domestic consumption and a merchant comes to buy it. In this case, selling rice or spice is an accidental event and they were not produced for sale. Therefore, monetary income earned in this case is temporary and extra.

Figure 2: External commodification

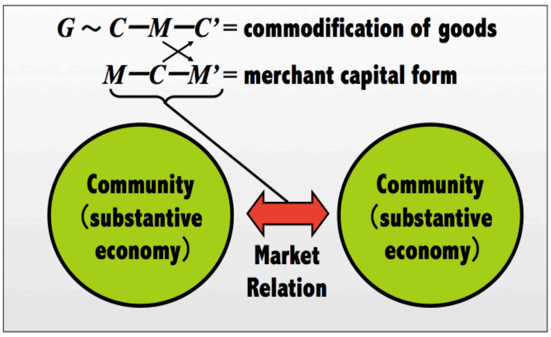
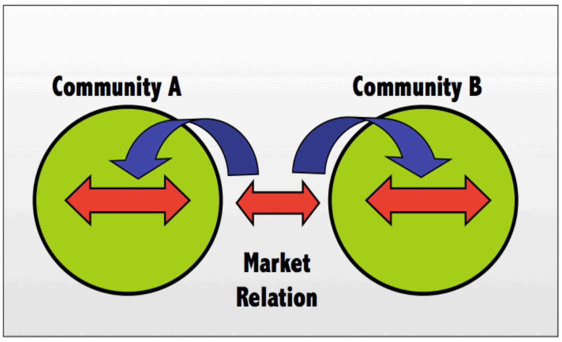


Figure 3: Internal commodification



A slave as a living commodity symbolically shows the properties of "external commodification". A Human was not produced for sale as a slave; a human was reproducing himself/herself by living within a community. Nevertheless, he/she was violently taken away from a community and sold for money as a slave. Such commodification of slave was implemented outside a community. This is an example of Polanyi's "fictitious commodity". Here, a human being, not labour, money or land, is turned into a "fictitious commodity" as slave. Although a human being is not a good to be produced or traded in a market society, a fiction was born that regards humans as tradable commodities like other goods.

Internal commodification: internal commodification is a process, in which market occurred outside a community or state reflectively penetrates the community, commodification of goods is established inside as well as outside it, a community and state collapse and the boundary between market and non-market disappears. Here, independent small producers or craftsman, even farmers need money to buy everyday goods. For this reason, their production becomes for monetary income, not for domestic consumption (Figure 3).

Through trades by merchant capital for the purpose of arbitrage, equivalence (commensurability) is brought into commodity exchange relations within a community. Money's invasion into a community is nothing but the destruction of the principle of reciprocity (the principle of non-equivalence without equivalence nor non-equivalence) by the principle of equivalence (Nishibe 1997, 2000a). Monetary equivalence in indirect exchanges is not the same as the mathematical equivalence implied in the law of one price, expressed as a binary relation with reflexivity, symmetry and transitivity (Nishibe 2000b). Even in the situation of distributed markets with the law of many prices, a commodity is commensurable in the one dimension of price with money functioning as a measure of value. This allows the agent with money to compare and choose commodities.

At this point, they still do not produce for the purpose of earning profit; they do not ask for profit as part of a price either. Even if independent small producers or craftsmen set price with a certain margin on it, it should be done so as to secure buffer to continue business in preparation for sales fluctuation in the future, which works like insurance to hedge the risk of unsold items, rather than to seek profit. Accordingly, commodity prices, through continued trades, should form a certain distribution around the mean or median. Producers calculate the production cost by adding up various necessary costs. The margin rate to be put on top of the cost is not uniform but should form a certain distribution, depending on optimism of the future expectation. Competition over price as well as other non-price factors is developed along with equivalence of money. Thus, reciprocity in communities or redistribution by the state is replaced by monetary bilateral transactions on market.

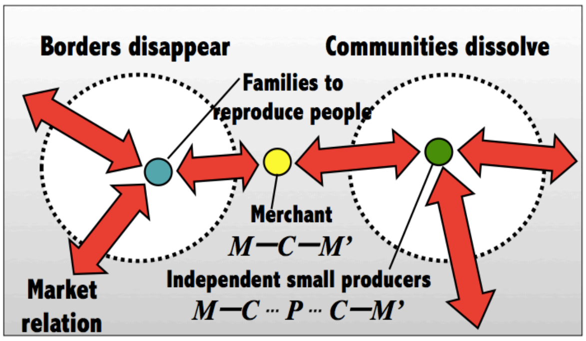
General commodification: general goods come to be produced primarily to earn as much profit as possible, which is sales amount after cost deduction. This is "general commodification" (Figure 4).

General goods are produced not for domestic consumption or consumption within a community, but to earn profit by their sale. Labor-power and land, due to its own properties, cannot move freely or be produced. Therefore, it is subject to the regulations of a community and thus more difficult to be commodified than other goods or services. Since they are not yet commodified at this point, the production of those commodities must depend on communal or domestic labour. The price of produces are calculated by adding a certain profit margin to the total of cost for the means of production such as raw materials, tools and machines and the estimated cost of the domestic labour. This phase corresponds more or less to what has traditionally been called a "simple commodity producers' economy" consisting of independent small producers.

Since agents who produce commodities to earn profit come to appear in general commodification, the production becomes organized in a concentrated manner. As long as they remain as a household-based handcraft industry and wholesale-system domestic industry (putting-out system), its scale is limited.

As seen in Table 1, internalization of the market has three different modes: external commodification, internal commodification and general commodification. The place of comodification transitions from outside a community/state to inside a community/state and to vanishing of the boundary between outside/inside, while the purpose of production of general goods transitions from consumption (domestic or communal) to income and to profit. The frequency of monetary exchanges also increases from casual to frequent and to constant. Market economy penetrates the substantive economy and integrates an economic society to a higher degree in the above order. Although there is such a typical order with three modes of commodity in terms of degree of integration of a socioeconomy, transitions do not necessarily follow the order, as the order changes and sometimes leaps in an actual history. This also applies to the evolution of capitalist market economy that accompanies three modes of commodification of labour-power to be discussed below.

Figure 4: General commodification



6. The establishment of a capitalist market economy

Capitalist market economy is a market economy in which general goods other than labour-power/land are produced and sold for profit, presupposing the existence of labour-power market. With external commodification of labour-power added to general commodification of general goods, it diverged as a peculiar form of general commodification of general goods. In other words, capitalist market economy can be understood as a peculiar market economy combining general commodification of general goods with external commodification of labour-power. We thus have such an inclusion relation as 'economy ⊃ market economy ⊃ capitalist (market) economy'.

Capitalist economy presupposes the existence of three modes of commodification in internalization of the market: external, internal and general. The rise of capitalist economy requires the development of modes of commodification in market economy as a necessary condition. Its sufficient condition is abundance of "free" wage labourers, "free in the double sense," who have lost the bonds with and protection of a village community and do not own the means of production for life. Only after labour-power and land, which used to be rigidly regulated by non-economic institutions like tradition, custom and law, can be traded "freely" based on a contract in an external labour markets or a real estate market, such economic agents as industrial capital and modern family could be formed inside a capitalist economy.

Putting land aside for the time being, commodification of labour-power as a sufficient condition for establishment of capitalist economy is in fact "external commodification" for a newly established modern family in an industrial society, but is "internal commodification" in the sense that new trade of labour-power dissolves reciprocal relations within preexisting communities of tribe or village in an agricultural society. This means that the same phenomenon can be understood differently depending on whether you see it from a viewpoint of new emerging communities or from that of old collapsing communities. This happens because humans used to be connected to both communities of a tribal family and a village, but they have come to belong only to a nuclear family.

In external commodification, whether of general goods or labour-power, a community and state are still immune to infection of market in many cases because they are strongly protected by various cultural, religious and political codes and regulations. Therefore, external commodification wouldn't be easily fulfilled by the economic logic alone. It requires non-economic factors such political interventions and violent acts as war, plunder, deprivation and establishment and/or abolishment of community norms and/or state law. Once external commodification is established, however, the subsequent modes of commodification advance by gradually stretching initial rips on protection of culture and politics so that the economic factors alone can drive the process. If a community and state weaken in the process of external commodification, internal commodification and general commodification will progress relatively easily without resistance by a community or state. Polanyi's "fictitious commodity" corresponds to "external commodification" we just discussed.

Industrial capital is a business entity that connects labour-power and the means of production in order to produce products and attempt to make profit from a difference between sales of products and advanced money capital. While it is dominated by the market principle in purchasing and selling, it has some hierarchical organization with chain of command for planning, decision-making and implementation in order to efficiently control and rationalize the production process. In that respect, it is largely dominated by the planning principle. Industrial capital, with such a planning principle and a hierarchical internal organization, came to be able to conduct mass-production of inexpensive commodities in a mechanized factory, by employing a large amount of labour-power that does simple labour, for a low cost.

Since all the input factors including labour-power are commodified and the calculation of the costs of production (cost of goods purchased) and profit is precisely conducted in accordance with the bookkeeping and accounting rules, "production of commodities by means of commodities" for profit is made possible. Industrial capital is the agent in a capitalist market economy with a specific purpose of making profit as much as possible by producing and selling certain commodities using labour-power and the means of production. A modern nuclear family is a minimal community that reproduces the present and future labour-power by buying and consuming the necessary goods with wage of labour. Capitalist market economy is a particular type of market economy that derives by combining two modes of commodification: general commodification of general goods plus external commodification of labour-power. It is a socio-economic system whose production is dominated, not by modern families and independent producers, but by industrial capital in the actual form of a firm or company that employs labour-power and produces general goods for profit.

7. The evolution of capitalist economy through change in the mode of commodification of labour-power

Can we see the current globalization as manifestation of a tendency of intensive deepening of market in evolution of capitalist economy? This is the main question to be examined in this article. In order to answer to it, we would like to present the following hypothesis. Labor-power, unlike a capitalist commodity produced to seek profit just like general goods, used to be a simple commodity domestically produced within a community called family. However, there is an ongoing change in mode of commodification of labour-power in a contemporary capitalist market economy. Labor-power has been transformed from a "simple commodity" without seeking profit into a "fictitious capitalist commodity" as being produced for profit. In other words, market internalization has gone enough to involve not only general goods but also labour-power. The mode of commodification regarding labour-power has already shifted from external commodification to internal commodification, and further to general commodification. Then the market relations based on monetary exchange have replaced both the relations within a community based on reciprocity and the relations within a state based on redistribution. Consequently, family in our time, which could be called "the last community," has become a "fictitious labour-power production sector" that capitalistically produces a labour-power commodity. As Table 2 shows, capitalist market economy is assumed to evolve through shift in modes of labour-power commodification.

In this hypothesis, three modes of market internalization associated with general goods – external, internal and general commodification – repeat themselves with regard to labour-power, as if "ontogeny recapitulates phylogeny," in capitalist market economy.

As those three modes represent themselves in a self-similar manner, in capitalist market economy, there should be following three modes: external commodification of labour-power (E Mode), internal commodification of labour-power (I Mode) and general commodification of labour-power (G Mode). In a traditional language, this can be said: labour-power is likely to be transformed from a "simple commodity" which does not contain profit to a "capitalist commodity" which is produced for profit. Since each model is rather abstract, explanations with specific cases as well as models followed by formula will be presented below.

Table 2: Evolution of capitalist economy through shifts in mode of commodification of labour-power

I. External commodification of general goods
II. Internal commodification of general goods
III. General commodification of general goods
IV. General commodification of general goods + External commodification of labour-power
= Establishment of capitalist market economy
1) Capitalist market economy with external commodification of labour-power（E Mode）
2) Capitalist market economy with internal commodification of labour-power（I Mode）
3) Capitalist market economy with general commodification of labour-power（G Mode）

In order for a modern family born under established capitalism to reproduce itself, it needs to reciprocally exchange and redistribute among family members not only commodities which can be bought in a market but also goods and services not tradable as commodities. The relations among modern family members depend more on non-market reciprocal exchanges and distribution than on market-like equivalent exchanges. In reciprocal exchanges including barter, there is no conception or standard of equivalence such as price and cost. Therefore, even if a certain emotion about profit or loss occurs, it cannot have a rational supporting ground. However, if money wage only contains the price of consumption goods to be bought in a market, there should be a "hidden cost" which, according to the logic of economy, does not count monetarily. Many of the consumer goods bought in a market are raw materials or semi-finished goods, which would eventually be consumable after going through such works as sewing, laundry, cooking, setting the table, cleaning and repair. These services are usually called "domestic labour." The characteristics of capitalist economy where labour-power is externally commodified lie in the fact that although the services called domestic labour are conducted for reproduction of labour-power, they are not recognized in a society or family as “labour” that requires monetary compensation. Ivan Illich calls it “shadow work” because “unpaid” work supports paid labour tradable in a labour-power market outside a family community (Illich 1981). Looked back from the viewpoints of subsequent types (I Mode and G Mode), therefore, in this type of labour-power commodification (E Mode), its price calculation does not seem to explicitly include all the costs and labour-power commodity is systematically underestimated.

In order for "domestic services" primarily provided by women to be recognized as "domestic labour" and also as sacrifice and cost necessary to produce labour-power, the conception of paid “labour” clarified by external commodification of labour-power and that of “wage” as its monetary compensation should reflectively penetrate a modern family and be recognized as something also applicable within a family. This is the same as internal commodification of labour-power within a family community. It is not until internal commodification of labour-power is completed that domestic labour becomes a "fictitious commodity" and is thus calculated as explicit cost in determining wage. This also includes the situation where women go beyond a range of family into a society and outsource the domestic labour with the wage they earn.

Economics has so far taken external commodification of labour-power for granted. In the tradition of classical economics, Ricardo (Ricardo 1817) and Marx (Marx 1867) assumed the so-called “iron law of wages” insisting that wage be determined at the minimum level, whether it is physiologically or culturally determined, required to reproduce labour-power[6]. This means that a wage earner and its spouse maintain life with the input of wage goods and domestic labour to physiologically or culturally reproduce the present labour-power while reproducing the future labour-power by giving birth of, support and educate children. Although real wage can be either exogenous or endogenous depending on which of those (physiology and culture) a priority should be given to, wage was generally thought to be the necessary amount to reproduce a family community of labour-power. If we put mathematically how value of labour-power is determined, it comes down to the idea, like in von Neumann’s growth model (von Neumann 1945-46), that value of labour-power (money wage) is equated to the price of a bundle of goods that a unit of labour-power consumes. This has become a common assumption followed by Neo-Ricardians and Marxists after Piero Sraffa (Sraffa 1960).

The difference in price setting mechanism for a general commodity and a labour-power commodity at the stage of external commodification of labour-power is as follows. In the case of general commodities, after calculating the total costs by adding all the means of production multiplied by their prices and labour-power multiplied by money wage, price is set by further adding average profit by multiplying the general rate of profit to it. General profit rate is applied as a margin because a certain mechanism through capital flow to equalize profit rate is believed to exist. For example, as long as it is free for capital to enter in and exit from each sector, capital constantly moves from lower profit sectors to higher profit ones. Therefore, it is theoretically explained that profit rates over sectors will be equalized in the long-run.

On the contrary, labour-power commodity is not a commodity capital produced for profit; it is a “simple commodity” that a community called a family reproduces without being conscious of the hidden cost. If the agent of activities does not recognize domestic services as domestic labour, its real cost is not recorded as production cost of labour-power. Money wage, under the assumption that “wage bundle” (a bundle of consumer goods to be bought by wage) consisting of many kinds of consumer goods required to reproduce a unit of labour-power is exogenously given, is calculated as the total value of each consumer good multiplied by its price. In this case, wage only covers the reproduction cost of labour-power and does not receive profit margin for it. Laborers who sell their labour-power are found in an inferior position than capitalists who sell their products as general goods.

We have already said that, in modern capitalism, labour-power went beyond the mode of internal commodification and turned into that of general commodification where it has become to be recognized as a capitalistically produced commodity. In this case, when a family as a labour-power production sector sells labour-power as its commodity, it will calculate the production cost by counting not only a wage bundle but also applying the money wage to domestic labour and set money wage by marking up the total cost by the general profit rate. The structural change in wage determination occurs because a family as the last community in a market economy is being eroded by the market principle, dissolved and reorganized into a fictitious labour-power production sector.

Then, why do internal commodification and general commodification of labour-power progress? when the economic categories such as “labour-power” and “wage” are established by external commodification of labour-power, they reflectively penetrates modern families and “domestic service” has come to be considered as fictitious “paid labour.” For, once family members who used to engage in "domestic service" based on reciprocity and redistribution begin to receive wage outside a family, they tend to regard it as troublesome and time-consuming "domestic labour" that burdens them with “opportunity cost.” Opportunity cost does not incur actual cost, but spending time on something decreases work hours, i.e., money wage. The decrease is regarded as a cost. By introducing the conception of opportunity cost, housekeeping and raising child to reproduce labour-power are transformed into "compensated labour." Once the equation "opportunity cost of household chore and childcare" = "price of commodities replacing them" = "labour wage of working outside a family" is established, domestic labour and raising child labour are thought of as being able to naturally demand money compensation equivalent to money wage in labour market. This is internal commodification of labour-power.

When the conception of opportunity cost has become a commonplace assumption, the shadow work for household chore and childcare comes to be socially underestimated by insisting it be work of no value since it does not earn money income. Furthermore, the value of human activities in a community that household chore and childcare are implicit ways of expressing affection and communication for their own pleasure vanishes and, accordingly, they try to avoid conducting domestic services and raising child. Internal commodification of labour-power is more influenced and promoted by social institutional factors in a broader sense including tradition, custom, belief and law rather than economic ones.

The institutional factors here include women's advance to a society and increase in their labour-power force rate, legal adjustments abolishing gender discrimination like Measures for Equal Employment Opportunities for Men and Women, changes in social custom and ideas in general backed by social movements calling for independent women and feminism, collapse of patriarchy in modern family and following change in attitude of family members. The social and cultural institutions and our attitude in daily and actual life are in interacting relationships; they evolve by influencing each other. This dynamically transforms the mutual relationship of market- and non-market domains, but generally, it promotes the market principle's erosion into a socio-economic society, and there is a tendency more activities that were not conventionally converted into monetary unit have come to be tradable with money.

As a result of domestic labour being replaced by new commodities and services, on the other hand, they gradually come into a basket of wage goods. We can see numerous consumer goods have come into a market as new commodities to replace domestic labour: from consumer electronics like refrigerator, washing machine, cleaner, dish washer, water heater, such services as water, electricity, gas, telephone, food catering, raising child, cleaning, home delivery to transportations like bicycle, automobile and train. Consequently, as domestic labour decreases and a bundle of wage goods increases, family's standard living increases in general.

So what kind of situation is general commodification of labour-power? Put it simply, it is a situation where labour-power turns into a "fictitious capital" in the name of "human capital." When people come to view, along with more wage earners in a family, outsourcing of domestic labour and more frequent dining out, their own spending on education, training, leisure, dining and sports as investment to develop human capital in terms of technique, knowledge and health, transformation of labour-power into human capital accelerates. Human capital is calculated as the present value of the flow of expected income from the future added by education and training discounted by interest rate. This kind of thought forms fictitious capital. The purpose of investment is to maximize the net present value – the difference between the expected value of capitalized human capital and the current investment amount. A family now has come to be like a labour-power production sector producing and selling labour-power commodity (human capital) in a market to earn profit (interest). The thinking of fictitious capital is applicable not only to education but to anything like culture, sociability and marriage. When the conception of education degree, license, specialized technology, knowledge, technique as "human capital" to increase the future income comes to have wider applications and people come to believe education, training, skill acquisition and better health are investment on human capital, general commodification of labour-power is accomplished. In other words, sales price of labour-power, like other production goods and consumer goods, includes not only production cost but also profit margin. Human capital investment is positioned as an investment activity to increase profit in the labour-power production sector. As a result, labour-power turns into a fictitious capitalist commodity produced and sold for profit seeking. The modifier, "fictitious," indicates a family operating the reproduction of labour-power is viewed like a profit company. Thus wage now asks for the same profit rate as with any businesses, going beyond the cost covering wage gods and domestic labour.

8. One-good models of external/internal/general commodification of labour-power[7]

Capitalist economy evolves as the mode of labour-power commodification transitions from external commodification to internal commodification and to general commodification. We will discuss how the general profit rate for capitalists and the real wage rate for labourers change during the process as well as what role innovation plays in the last general commodification of labour-power.

Here three modes of commodification of labour-power – external, internal and general commodification of labour-power (we call them E Mode, I Mode, and G Mode, respectively) – will be analyzed based on a simple model of corn economy that has a corn sector and a labour-power sector only. Corn represents a general good other than labour-power and land. But land is not taken into consideration in this model. The figures below show those three cases – E Mode in Figure 5, I Mode in Figure 6 and G Mode in Figure 7. In each figure, blue and green arrows represent the necessary inputs of corn and labour-power, respectively, to produce a unit of corn and labour-power. Red arrows represent the circulation of money in the trades of corn and labour-power. Service labour (domestic labour) does not receive any compensation in model E, thus it does not incur money circulation. In Models I and G, however, there are money circulations following the service labour. The formulas to determine price of corn and labour-power are in the squares of corn and labour-power sectors, respectively. The formula for corn price is the same across all the models while the formula for labour-power varies.

These are one-good models, in which corn is the only product and it is also a production good as well as a consumer good. A family is regarded as a (fictitious) labour-power production sector here, and we will call it a labour-power sector. Let the input coefficients of corn and labour-power in the corn (first) sector be a_1, l_1 (0< $a_1 < 1$, $l_1 > 0$), respectively, the wage bundle coefficient (quantity of corn as wage good to reproduce one unit of labour-power) and the input coefficient of domestic labour input (quantity of domestic labour input required to reproduce a unit of labour-power) be a_2, l_2 ($a_1 > 0$, 0< $l_2 < 1$)[8], respectively, and the price of production for corn be P, money wage be W, the general rate of profit be r. Here, the formula for determining price of corn, which is the same across three models, is:

(1) $P = (a_1 P + l_1 W)(1 + r)$

The cost of producing a unit of corn is $a_1 P + l_1 W$. The price of production for corn is determined by marking up at the profit rate. The equations for money wages are shown for each mode are:

(2) $W = a_2 P$ E Mode

(3) $W = a_2 P + l_2 W$ I Mode

(4) $W = (a_2 P + l_2 W)(1 + r)$ G Mode

Figure 5: Capitalist economy with external commodification (E Mode)

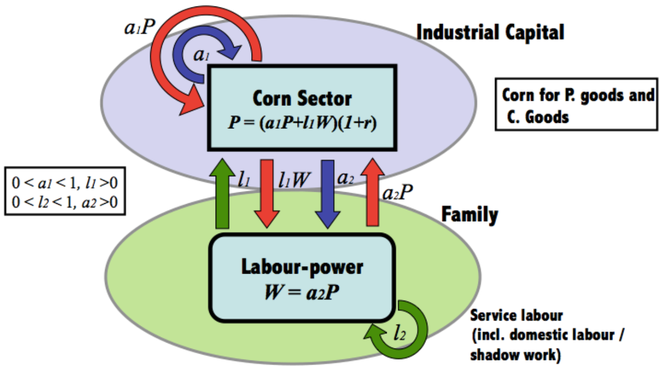


Figure 6: Capitalist economy with internal commodification (I Mode)

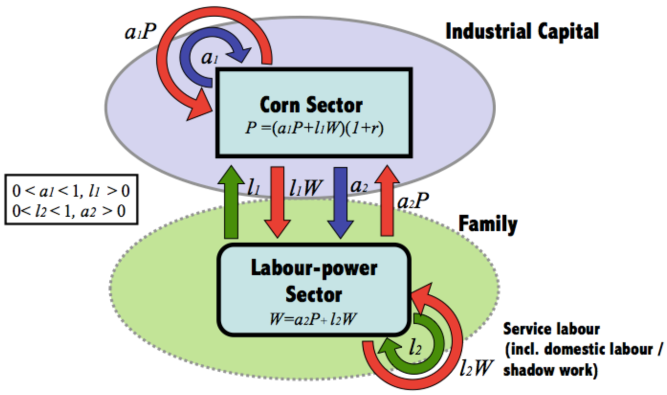
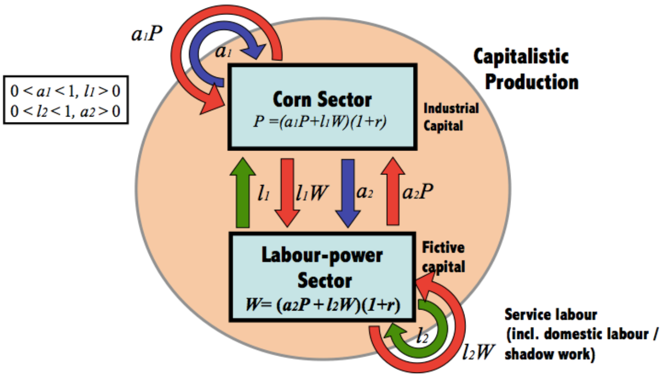


Figure 7: Capitalist economy with general commodification (G Mode)



The money wage equation for E Mode is a conventional one that represents the cost of labour-power reproduction. Money wage W is the amount of money that can buy the wage bundle a_2, exogenously given as the necessary quantity of corn to reproduce a unit of labour-power. In I Mode, l_2W, which is the wage for domestic labour to produce labour-power, is included in the money wage W. In G Mode, profit is marked up to the cost of reproduction of labour-power in I Mode. The money wages for a labourer and domestic labourer are both equal to W, which can be regarded as the money wage paid for outsourced domestic labour, because, once domestic labour is acknowledged as labour to be paid, labourers move to seek arbitrage whenever there is a gap in wages between wage labour for a general goods sector and domestic labour for labour-power sector, i.e. family. In G Mode, the markup of the general rate of profit r is applied to a unit cost $a_2P + l_2W$. If we put real wage W/P as w, from (1), we get:

(1′) $r = \frac{1}{a_1 + l_1 w} - 1$

This is a monotonic decreasing function of the real wage w. From (2), (3) and (4), we get:

(2′) $w = a_2$ E Mode

(3′) $w = \frac{a_2}{1-l_2}$ I Mode

(4′) $r = \frac{w}{a_2+l_2 w} - 1$ G Mode

Figure 8: Comparative statics of Modes E, I and G

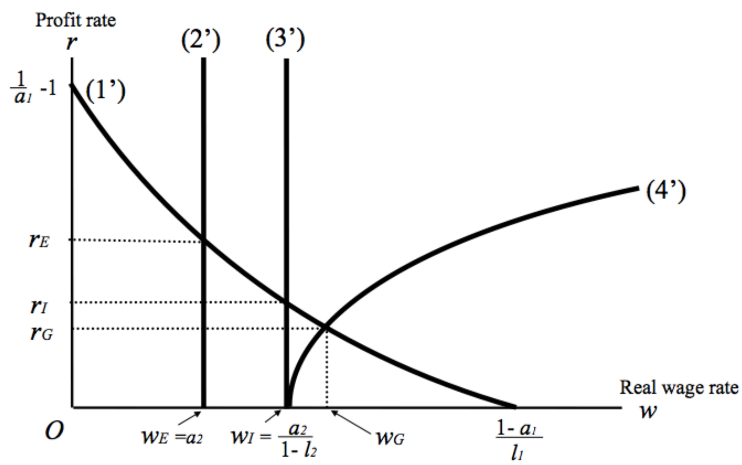


Figure 8 shows (1′), (2′), (3′) and (4′) depicted on the first quadrant of (w, r) plane. By rewriting the solutions of real wages and general rates of profit in (1′) and (2′) for E Mode, (1′) and (3′) for I Mode, and (1′) and (4′) for G Mode as (w_E, r_E), (w_I, r_I), (w_G, r_G), respectively, we can prove the following propositions:

[Proposition 1] $w_E < w_I < w_G \Leftrightarrow r_E > r_I > r_G$: If domestic labour l_2 is greater than zero, the real wage w increases and the uniform rate of profit r decreases as the capitalist economy advances its degree of commodification of labour-power from E Mode to I Mode and to G Mode.

[Proposition 2] $\frac{\partial w_E}{\partial a_2} > 0$: In external commodification of labour-power (E Mode), as the wage bundle a_2 becomes larger, the real wage rate w_E increases and the uniform rate of profit r_E decreases.

[Proposition 3] $\frac{\partial w_I}{\partial a_2} > 0$, $\frac{\partial w_I}{\partial l_2} > 0$: In internal commodification of labour-power (I Mode), as the wage bundle a_2 becomes larger, or as the domestic labour l_2 becomes larger, the real wage rate w_I increases and the uniform rate of profit r_I decreases.

[Proposition 4] $\frac{\partial w_G}{\partial a_2} > 0$, $\frac{\partial w_I}{\partial l_2} > 0$: In general commodification of labour-power (G Mode), as the wage bundle a_2 becomes larger, or as the domestic labour l_2 becomes larger, the real wage rate w_G increases and the uniform rate of profit r_G decreases.

[Proposition 5] In general commodification of labour-power (G Mode), innovation (process innovation) lowering the production cost of labour-power $(a_2 P + l_2 W)$ in the labour-power sector under the existing price system increases the uniform rate of profit r_G and decreases the real wage rate w_G (Figure 9).

[Proposition 6] In general commodification of labour-power (G Mode), innovation (process innovation) lowering the production cost of corn $(a_1 P + l_1 W)$ in the corn sector under the existing price system increases both the uniform rate of profit r_G and the real wage rate w_G (Figure 10).

Figure 9: Technological innovation in labour-power production sector

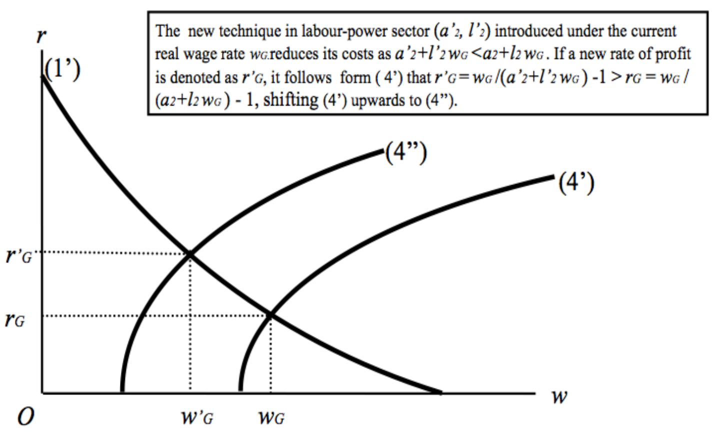
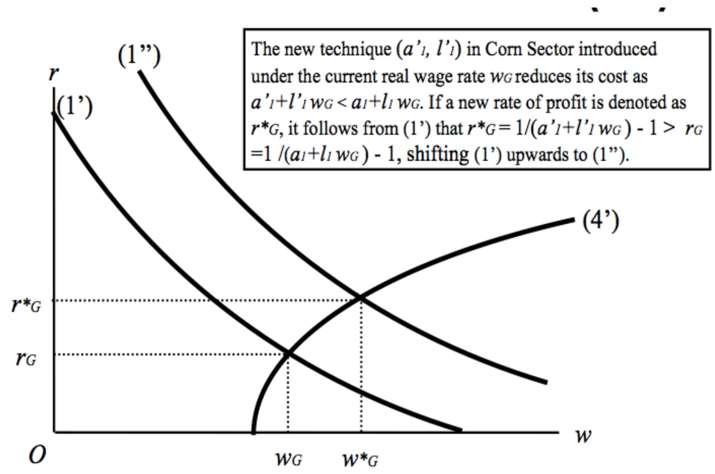


Figure 10: Technological innovation in corn production sector



Noteworthy are the propositions 1, 5 and 6. According to the propositions 2, 3 and 4, when the wage bundle (and domestic labour) increases, the real wage increases in all the models. According to the proposition 1, if the production technology and wage bundle are constant[9] and the domestic labour is greater than zero, the real wage rate increases, the profit rate decreases and the income distribution becomes favorable to labourers, following the development of market internalization in labour-power. This can be called "the law of the tendency of the rate of profit to fall following internalization of market." While Marx's law of the tendency of the rate of profit to fall is related to the properties of technological progress in capitalism brought about by increase in organic composition of capital in production technology, the law of the tendency of the rate of profit to fall in this paper explains the real wage rate increases and the profit rate decreases as the degree of internalization of market in terms of labour-power market goes to a higher degree, which fundamentally defines capitalism, and as the process about labour-power transitions from external commodification to internal commodification and to general commodification. In the external commodification where labour-power was a simple commodity, it was evaluated less favorably than general goods, but labour-power turns into a capitalist commodity that is reproduced while creating the same profit as general goods do. In general commodification, labour-power receives the equivalent evaluation as general goods and the status and standard of living of labourers increase.

This tendency emerges especially as wage labourers come to ask for the money wage of a profit sharing type tied to company's profit rate through negotiations by trade union, and as many labourers expect to receive income from investment on their own human capital as part of wage from capitalists. Since domestic labour was not evaluated as cost and the cost was not added to profit, labourers were less favorably evaluated than general goods. As it transitions towards general commodification of labour-power (G Mode), the gap is corrected and, accordingly, the profit rate decreases and the real wage increases.

In general commodification of labour-power (G Mode), as the equation to determine the money wage includes the uniform rate of profit r, income distribution (net product is divided into real wage and profit) is endogenously determined together with relative price (the real wage rate in this case). Therefore, the request by labour union for increase of money wage rate comes to increase in uniform rate of profit to reproduction cost of labour-power, only leads to inflation in accordance with the rate of increase in the money wage and does not increase the real wage (wage-price spiral)[10]. Sraffa and the neo-Ricardians demonstrated that determination of income distribution (profit rate or real wage rate) logically precedes the price determination, and this was interpreted to have presented the political usefulness of wage struggle. However, if capitalism is close to G Mode, the discussion may need to be fundamentally reconsidered[11].

9. A capitalist economy based on general commodification of labour-power: class division and self-activation

What will capitalist economy with general commodification of labour-power, in which labour-power has turned into fictitious capital as human capital, bring about? First, it is necessary to attach more importance to heterogeneity of labour-power commodity since labour-power is no longer homogeneous and each has different quality such as special knowledge, technique and skill.

On one hand, labourers with abundance of human capital emerge and, on the other, labourers with no such human capital are split. In that case, the rate of profit of the labour-power sector $r = k$ (≥ 0) in G Mode comes to vary. If it is smaller than the rate of profit of the corn sector r $(r > k)$, then the real wage rate w_I in I Mode determines the lowest level for labourers with no human capital when $k = 0$. k increases as labourers obtain bigger human capital than that and its maximum value is $k = r$. Florida says "creative class" with technology, talent and tolerance has emerged as a group of individuals who have a variety of human capital (Florida 2002, 2005). We need to admit, in reality, such class division has already developed. If a new class division has taking place with labourers, non-"creative class" who only can offer homogeneous and unskilled labour-power, to which $k = 0$, i.e., I Mode corresponds to, has difficulty in finding a long-term jog as a fulltime worker, forms an industrial reserve army of the highest risk of losing job over economic cycle and, consequently, their income level would be lower. On the other hand, the labourers belonging to "creative class" with $k = r$ has become labour-power of low substitution due to their own knowledge or technique, has low risk of losing job over economic cycle and is in a position to earn relatively high wage in internal labour-power market.

Since the circumstances between those with human capital and without differ, mutual cooperation and association are difficult. Evolution of capitalism brings about a class division deriving from the transformation of labour-power into human capital and fictitious capital. This explains the current reality: lifting a ban on dispatched workers created a number of working poor who cannot even earn the minimum wage; many come to stay away from work; the rate of trade union participation lowers; and the number of labour disputes decreases despite the tendency of unemployment rate to increase.

The propositions 5 and 6 are applications of Shibata=Okishio Theorem (Shibata 1935, Okishio 1965) regarding technological progress, insisting that introduction of new technology (process innovation) lowering cost in the comparative statics sense necessarily increase the rate of profit and that if that happens in the corn sector (more generally, in the sector of general goods such as production goods and consumption goods), then it increase the real wage rate and if it happens in the labour-power sector, it decrease the real wage rate. In contrast to the Models E and I where the real wage rate was assumed culturally and socially given, in G Mode where it is endogenously determined, technological innovation in the corn sector (the sector of general goods) increases the general rate of profit and the real wage rate and endogenously increases the income distribution of labourers. This indicates the process of technological progress is favorable both for capitalists and labourers and there is an incentive to promote technological innovation for both of them. In other words, since it can form a win-win relationship between capitalists and labourers, they can come to mutually cooperate for technological innovation.

The proposition 1, which states the progress of mode from external commodification of labour-power commodification to internal commodification and to general commodification increases the real wage rate and decreases the general rate of profit, indicates, as capitalism evolves, the tendency that the total of earned wages of a family increases, that the position of labourer and domestic labourer as a seller of labour-power improves, that the position of capitalist lowers in a distribution relation between capital and labour and that the potential of capital accumulation and economic growth decreases. According to the proposition 6 regarding general commodification of labour-power stating that labourer arrives at the same position as capital, however, capitalism, as it evolves to G Mode, has a built-in technological innovation process simultaneously achieving both increase in profit rate as well as relative improvement of position of labourer. It attains to self-activation by enhancing the potential of capital accumulation and economic growth over again.

Capitalism appears to bring itself to an unfavorable situation for itself by treating labour-power as general goods and the uniform rate of profit decreases accordingly. Nevertheless, it brings out the potential growth possibilities not from exploitation of labourers and domestic labourers (by setting more unfavorable price to labour-power commodity than to general goods or not calculating domestic labour as wage) but from the increase in profit rate through technological innovation by treating labourers better as in an equivalent position as capital, thus transforming it into "fictitious capital" and eventually shift toward the free investment capitalism. This invokes Marx's mechanism of producing relative surplus value mediated by emergence and vanishing of extra surplus value. Thus, capitalism demonstrates the strength to reverse its stagnation and self-activate by transforming the rule of labour-power commodification as a replicator for its own fundamental existential conditions.

10. The replicators of free investment capitalism and fictitious capital as the ultimate model of globalization

The above theoretical model makes it clear that the ultimate model of globalization is "free investment capitalism" where all the commodities including labour-power are produced and sold for profit, people always invest to every profit/income opportunity including themselves, and the freedom it puts forth is freedom of investment. Globalization is an obsessional-neurosis tendency of driving us to transform human life itself into investment transactions and means of earning income. It is not only hedge fund managers or large-scale capitalists but also all of us including labourers that need to invest. "Everybody, be a free investor!" would be the precise slogan for globalization.

Globalization did not arise out of individual's seeking for more rationality or freedom; it came into being because a set of replicators of capital form eventually parasitized individuals and commanded them to seek infinite self-augmentation that was felt a rather irrational desire for human beings, so that "fictitious commodity" and "fictitious capital" are activated to propagate in a socioeconomy. As modes of commodification progress through internalization of the market, "fictitious commodities" and "fictitious capital" related to labour-power, land and money become ubiquitous.

Globalization indicates the change of replicators of capitalist economy, which leads to autonomous evolution into free investment liberalism and enhancement of growth potentiality of capitalist economy. Introducing new replicators so as to treat the things and events with no intrinsic affinity for commodification and capitalization brought about unpredictable side effects on such phenotype properties as morals and ethics. The most important implication of globalization can be understood in view of another trend of deindustrialization. As seen in the last section, G mode capitalist economy has come to gain profit for its growth potentiality, not from acquisition and exploitation of surplus labour-power of labourers, but from super profit by continuous innovation that keep on creating new differences, i.e. new information and knowledge. But in the age of post-industrial socioeconomy, commodification and capitalization shift towards production and creation of information and services including finance, for which it would be much easier to create "differences" than physical goods, in particular industrial products, that require a large scale of fixed capital.

What drives globalization is neither merchant capital nor industrial capital; it is fictitious capital such as financial capital and human capital. Through internalization of the market, each individual, being more engaged in comparative considerations of costs and benefits as an independent and free person with self-love and keen consciousness of equivalence, would come to be cultivated as a capitalist or investor seeking more profit and becomes a vehicle of capital. In his *Capital*, Marx says "individuals are dealt with only in so far as they are the personification of economic categories, the bearers of particular class-relations and interests" (Marx 1867=1992, 92), admitting that capital is a "meme" (cultural gene) and human beings merely a "vehicle" operated by the program of the meme. This is precisely why we need to question the rules and institutions that replicate economic society, rather than charge each person with the responsibility.

[References]

Becker, G. (1964=1993, 3rd.) *Human Capital: A Theoretical and Empirical Analysis, With Special Reference to Education,* University of Chicago Press.

Florida. R. (2002) *The Rise of the Creative Class*, Basic Books

Florida. R. (2005) *The Flight of the Creative Class*, Harper Business

Hicks, J. R. (1939) *Value and Capital: An Inquiry into Some Fundamental Principles of Economic Theory*. Clarendon Press.

Hicks, J. R. (1969) *A Theory of Economic History*, Clarendon.

Illich, I. (1981) *Shadow Work*, Marion Boyars Publishers

Ito, M. (1988) *The Basic Theory of Capitalism: The Forms and Substance of the Capitalist Economy*, Macmillan.

Marx, K. (1859) *Kritik der Politischen Ökonomie*,Franz Duncker

Marx, K. (1859) Kritik der Politischen Ökonomie, Franz Duncker

Marx, K. (1867(I), 1885(II), 1894(III)=1962) *Das Kapital*, Bd. I, II, III: Marx-Engels Werke, Bd.23, Dietz Verlarg.

Marx,K. (1867=1992), *Capital:* Volume 1: A Critique of Political Economy, Penguin Classics

Marx,K. (1895=1981), *Capital:* Volume 3: A Critique of Political Economy, Pelican

Mincer, J. (1958) 'Investment in Human Capital and Personal Income Distribution,' *Journal of Political Economy,* 66(4)

Morishima, M. (1994) *Shiso to shiteno Kindai Keizaigaku* (*Moden Economics as a Thought*), Iwanami shoten

Neumann, J. von (1945-46) "A Model of General Economic Equilibrium" *The Review of Economic Studies*, 13(1): 1-9

Nishibe, M. (1996) *Sijyozou no Keifugaku* (*A Genealogy of Market Images*), Toyo-Keizai Shinpo-Sya

Nishibe, M. (1997a) "Rodoryoku no Gaibu Shohinka, Naibu Shohinka, Ippan Shohinka – Shijo no Naibuka niyoru Shihonshugi no Shinka (External Commodification, Internal Commodification and General Commodification of Labor – Evolution of Capitalism through Internalization of Market) *Keiriron Gakkai Nenpo* (Annual Buletin of Japan Society of Political Economy) 34:143-64, Aoki Shoten

Nishibe, M. (1997b) "Gosyu-teki Koukan to Touka Koukan: Saiseisan Keizai Taikei niokeru Kakaku no Hitsuyosei (Reciprocal Exchange and Equivalent Exchange: Necessity of Price in a Reproducible Economic System)",*Keizaigaku Kenkyu (Economic Studies)*, Hokkaido University, 50(3), pp.78-98

Nishibe, M. (2000a) "Ethics in Exchange and Reciprocity" in Shionoya, Y. and Yagi, K. (eds.) , Trust, Cooperation and Competition, Springer-Verlag, Chapter 4 (77-95).

Nishibe, M. (2000b) "Jiritsubunsan-teki Sijyo niokeru Kahei (Money in an Autonomous Destributed Market)",*Keizaigaku Kenkyu (Economic Studies)*, Hokkaido University, 50(3), pp.78-98

Nishibe, M. (2014) "Gurobarizesyon: 'Sijyou no Naibuka' niyoru Sihonsyugikeizai no Shinka (Globalization: Evolution of Capitalist Market Economy through 'Internalization of Market')", Japan Association for Evolutionary Economics, The 18th Annual Meeting in Kanazawa University, No.18, pp. 354-373.

Okishio, N. (1965) *Shihonsei Keizai no Kiso Riron* (*Basic Theory of Capitalist Economy*), Sobusha

Polanyi, K. (1944=1971) *The Great Transformation: The Political and Economic Origins of our Time*, Beacon Press

Ricardo, D. (1817=1951) *On the Principles of Political Economy and Taxation,* ed. P. Sraffa, Cambridge University Press

Rowthorn, B. (1980) *Capitalism, Conflict and Inflation*, Lawrence and Wishart, London.

Shibata, K. (1935) *Riron Keizaigaku Jo* (*Theoretical Economics*, 1st Volume), Kobundo shobo

Sakai, Y. (2010) 'Keizai Sisutemu no Hikaku Riron (Comparative Theory of Economic Systems)' T*he Hikone Ronso*, No. 386, pp.94-116

Sekine. T. (1985) *The Dialectic of Capital: A Study of the Inner Logic of Capitalism*, Yushindo Publishing.

Sraffa, P. (1960) *Production of Commodities by means of Commodities*, Cambridge University Press.

Uno, K. (1980) *Principles of Political Economy. Theory of a Purely Capitalist Society*. Translated from the Japanese by Sekine, The Harvester Press,

[Footnotes]

1. Becker's discussion started with the empirical fact that there are positive correlations between education and high income as well as education and low employment rate. However, it is said that he was hesitant for a while to make the book title *Human CapitaI*. For, the term was not widely used in 1960s when its first edition was published and also it faced harsh criticism claiming that he was treating human as machine or slave. But by the time its third edition was published 1990s, the term was so widely accepted it was featured on the Business Week magazine. Even more surprising was that the feature turned out to be the most popular throughout the magazine's history of the past several decades (Becker, 1993 p.16).

2. This point is valid in the case of United States, in which students pay the education cost for college by him/herself. It is not applicable to Japan where parents mostly take care of the cost. It is probably because there still remains a strong sense of reciprocal relationship and reproduction from generations to generations in a continuous succession of family community called *Ie* (house) in Japan.

3. "In fact, the exchange of commodities evolves originally not within primitive communities, but on their margins, on their borders, the few points where they come into contact with other communities. This is where barter begins and moves thence into the interior of the community, exerting a disintegrating influence upon it." (Marx 1859, S.35-36）

"it is altogether wrong to assume that exchange within the community is an original constituent element. On the contrary, in the beginning exchange tends to arise in the intercourse of different communities with one another, rather than among members of the same community. Moreover, although money begins to play a considerable role very early and in diverse ways, it is known to have been a dominant factor in antiquity only among nations developed in a particular direction, i.e., merchant nations." (ibid. S. 94)

"Trading nations, properly so called, exist in the ancient world only in its interstices, like the gods of Epicurus in the *Intermundia*, or like Jews in the pores of Polish society." (Marx 1867 S.93, Capital Vol.1)

"The exchange of commodities, therefore, first begins on the boundaries of such communities, at their points of contact with other similar communities, or with members of the latter. So soon, however, as products once become commodities in the external relations of a community, they also, by reaction, become so in its internal intercourse." (ibid. S.102-3)

"the evolution of products into commodities arises through exchange between different communities, not between the members of the same community." (Marx 1894 S.187)

4. "Organized market" and "unorganized market" respectively correspond to "concentrated market" and "distributed market" in this paper.

5. An economic system is reproducible either by a reciprocal exchange or an equivalent exchange. An equivalent exchange is an exchange relation that satisfies transitivity among three and more economic agents. For example, suppose that we exchange a certain quantity of the good A to the good B and then exchange the good B to the good C. If the quantity of the good C thus obtained by the indirect exchange is equal to the quantity of the good C obtained by directly exchange of the good A with the good C, the exchange relation satisfies transitivity. Therefore, it is an equivalent exchange if reflexivity and symmetry are also satisfied. A reciprocal exchange is a type of exchange that emerges in the form where agents mutually give what the other needs. In the case of two agents, if each takes a good he needs from the other and as much as he needs from the other, it is a reciprocal exchange. It cannot be distinguished from barter in the form. But in the case where a single technology is given to produce each product and certain input is needed to produce any goods, the meaning of "need" becomes clear. (Nishibe 1997b)

6. Rowthorn, in his 'Marx's Theory of Wages,' (Rowthorn 1980. Ch.7), clarified that Marx's arguments on wages is closer to Ricardo than is generally thought since Ricardo acknowledge the cultural and historical character of subsistence level, and Marx drastically changed his view on wages from early writings to later writings. Marx takes over four points on wages from Ricardo: i) The distinction between the market price of labour and its natural price, ii) the natural price of labour as the subsistence wage determined by 'cost of production' to maintain the existing workforce and ensure its reproduction, iii) the importance of accumulation in the demand for labour and the movement of wages, iv) the role of machinery as a means of saving labour holding down wages. Marx believed in

the thesis of absolute impoverishment because wage gets down to their physiological minimum. Although Lassalle later called it 'iron law of wages,' Marx rejected it then. Marx define wage as the value of labour-power in three different ways: 1) the cost of production of labour-power, 2) the traditional standard of life for workers, 3) the standard of living in non-capitalist modes or forms of production. The common idea is a minimum standard of life that wages should provide.

7. This part is grounded on Nishibe (1997a). The proofs of propositions and treatment of two-sector models are omitted due to the paper's limited space.

8. The reason why $0 < l_2 < 1$ is because the domestic labour l_2 required to produce a unit of labour-power must be less than a unit in order to be productive. It indicates the proportion of how much percent of labour-power is required to produce a unit of labour-power, rather than domestic labour time. Or it can be considered to be a contribution or share (0% to 100%) in earning of money wage W of labour-power.

9. If we can consider labour-power to be a product similar to general goods, the assumption that the wage bundle and the domestic labour are constant is the same as the assumption that production technology is constant. It examines what would happen by taking implicit inputs into a calculation as explicit costs while technology is constant, and leads to the proposition 1.

10. This is similar to stagflations observed in 1970s. It suggests G Mode was established during that time.

11. These models' implications on economic cycle are as follows. Let's assume the rate of profit (markup rate) of the labour-power sector in G Mode is k (≥ 0) and it is smaller than the rate of profit r of the corn sector. It shows the degree of general commodification, i.e., fictitious capitalization, of a labour-power commodity. There is a certain level of industrial reserve army (stock of unemployment) in the labour market. When demand for labour-power increases in response to expansion of capital accumulation in an expansion period of economic cycle, wage remains at a minimum level since supply of labour provided from industrial reserve army can quickly respond to the increase of labour-power demand and quantitative adjustment works until it is exhausted. It is the case of $r = 0$, i.e., I Mode. However, labour-power is a commodity whose production cannot be increased in a short-term. Therefore, when the unemployed stock is exhausted, its supply becomes completely inelastic. Consequently, the monetary wage will increase and the profit rate k of the labour-power department will increase. If k increases, the profit rate r of the corn sector decreases. So the rates of profit in both sectors come to equalize at some point. G Mode is established in the situation of $k{=}r$. Although k may increase beyond r when the demand for labour-power is extremely strong, k has some upper limit since there is a lower limit for r ($r = 0$ or $r =$ interest rate). During economic cycle, when there is unemployed stock, it seems it comes close to I Mode and it comes close to G Mode when the

unemployed stock is exhausted. This example started from a minimum wage level of k=0. But just as the rate of profit does not come down to 0 even when there is an inventory stock in the case of general goods, it may be realistic to assume that the rate of profit of the labour-power sector to be positive when there is unemployment, even though it might be lower than that of general goods. In this case, the situation even more approximate to G Mode will emerge. But G Mode is not a phenomenon approximately established during an economic cycle. It should be thought of as theoretical extension of internalization of market in progress over a long-term and as description of an ultimate form of capitalism.

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Reconsideration of Gesell's Critique of Marx's Capital Theory

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Abstract

It is commonly believed that Gesell was one of the originators of modern local currency. In addition, his concepts of anarchy have been well accepted. These concepts were, in particular, money-capital theory and individual anarchist socialism, or 'market-centred socialism'. They involved criticism of Marxist capital theory. This paper reconsiders the capital theory debate between Gesell and Marx. To this end, it reviews Gesell's understanding about Marx's theory of capital in his most controversial works, namely *Natural Economic Order* (1920, 4th ed.) and *Die Ausbeutung, ihre Ursachen und ihre Bekämpfung* [*Exploitation, its Causes and its Struggle*] (1922). Gesell summarised three misconceptions of Marx's theory. First, whereas Marx defined the concept of capital as 'real capital' (the means of production), Gesell was of the view that 'real capital' was not capital but money-capital or interest-bearing capital. Second, while Marx assumed equitable exchange between money and commodities, Gesell believed this exchange to be unequal. Third, Marx viewed labour power as a commodity but Gesell defined it as a labour product. It seems clear that Gesell's critique of Marx has been overlooked amid confusion about the debate. This paper reconsiders the significance of the debate and why Gesell's concept has been accepted under financialisation.

Keywords

local currency, anarchism, surplus value, exploitation, basic interest, money-capital theory

I Background of the Study

The name of Silvio Gesell (1862–1930) was almost unheard of during the 1980s but has re-emerged in the 21st century academic sphere. This is because Gesell is now recognised as one of the originators of 'local currency', which is a monetary reform movement to reconstruct regional eco-cycles and protect from the disturbance of exogenous financial transactions. Gesell's input has re-emerged since the 1997 Asian currency crisis, which occurred after the collapse of the Soviet Union in a period of globalisation, and bred discontent with increasing levels of income earned in an apparently unethical manner, such as interest and rent, and created an orientation towards self-aid and small government. Among the origins of modern local currency are *Arbeitsbestätigungen* (labour certificates) in Wörgl and *Wära* in Schwanenkirchen in 1930s Germany, which are understood to have been influenced directly by Gesell (Blanc 1998: 475).[1] The characteristics of these local currencies, the so-called *Schwandgeld* (dwindling money), include the adoption of

[1] *Wära* is coined from a compound of *Ware* (commodity) and *Wäbrung* (circulation) (Blanc 1998: 481).

decreasing value over time, and these features had some success during the hyper-inflationary period from 1929. Therefore, Gesell's works have been revisited in recent research.[2]

After World War II, Gesell became a 'forgotten thinker' and was the subject of much academic research. By way of explanation, according to Aida (2014: 31–2), Gesell's works were written in difficult German language, were neglected by both Marxian economists and modern economists after the Cold War, and were disregarded by academics because Gesell was a self-educated man.[3]

Another reason for the more recent focus on Gesell, according to Preparata (2006), is that 'it is time that radical political economics receives anew its lost anarchist tradition' in a global context after the 11 September 2001 attacks on the United States, which provide background for acceptance of Gesell's economic doctrine of the anarchist mode by radical political economist[s] in the US. For example, anarchist thought contains 'the theory [of] a few simple, yet penetrating analytical tool[s]' in the politico-philosophical sphere, a 'utopianism benevolently conceived as a normative socioeconomic blueprint', and the attraction of 'a growing number of radical economists away from the somewhat sterile games of Marxian transformation and into the yet uncharted theory of locally issued means of payment, especially those bearing the device of perishability' (Preparata 2006: 624).

Yet another reason for the recent focus on Gesell has origins in Onken, who edited the works of Gesell and proposed the possibility of an economic system as 'a market economy without capitalism' (Onken 2000: 614), which is neither plan and market, nor a 'third way' as a middle way. Onken's proposal is resonant with a 'genuine market', or a kind of market socialism operated by subjects as anarcho-syndicalism and labour-managed firms (Hodgson 1999: Sec. 2).[4] Such a viewpoint positively promotes a market that grows 'competitive entrepreneurship' (Onken 2000: 609), which is in opposition to Marxian schools in eastern European countries that defensively introduced the market to a planned economy because they emphasised an anarchistic production system of the commodity economy.

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[2] Gesell's works have perhaps been evaluated most by Irving Fisher among economists. He dispatched an investigating committee to Wörgl, and furthermore, recommended Gesell's policies in the US (Barber 1997: 37–41).

[3] Aida's (2014) first and third explanations are not a metric for separation pre- and post-war. To understand the essential problem of why Gesell was ignored, the participation in fascism of Gesell's successors needs to be studied.

[4] In addition, Zhiyuan points out that 'Gesell's "stamp scrip" proposal is a telling case of petty-bourgeois socialism's economic vision: instead of abolishing the market economy, we can create a market economy with more freedom and equal opportunity by reforming and bringing innovations into the monetary institutions' (Zhiyuan 2003: 61).

The three abovementioned researchers commonly recognise that mainstream economists have discarded anarchism from consideration.[5] To the contrary, the frame of thought of Proudhon and Gesell suggests that in order to debate local currency, a revaluation of anarchism is necessary. However, Aida notes that Gesell's monetary reform does not imply a concept of 'local', but rather the prospect of general social reform, including nationalisation of land (Aida 2014: 113). Hence, it is misleading to read Gesell's works as a theory of local currency.

Although Gesell was a 'forgotten thinker' after World War II, he was referred to frequently in literature before the war. He seems to have been referred to mostly in Keynes's *General Theory of Employment, Interest and Money* (1973). Keynes described Gesell's work thus: 'The purpose of the book as a whole may be described as the establishment of an anti-Marxian socialism, a reaction against *laissez-faire* built on theoretical foundations totally unlike those of Marx in being based on a repudiation instead of on an acceptance of the classical hypotheses, and on an unfettering of competition instead of its abolition. I believe that the future will learn more from the spirit of Gesell than from that of Marx. The preface to *The Natural Economic Order* will indicate to the reader, if he will refer to it, the moral quality of Gesell. The answer to Marxism is, I think, to be found along the lines of this preface' (Keynes 1973: 355). Thus, even if Gesell was, as several researchers have said, 'highly praised' (Morino 2000: 106; Aida 2014: 31), the emphasis in the text should be on '*than from that of Marx*', and the researchers' praise would, in general, be an overstatement of high evaluation.[6] According to Preparata (2002), it is even considered that Keynes stole Gesell's ideas.[7] Preparata mentions that Keynes ignores Gesell's real intention, that is, the aim of achieving Gesellian social reform, while Keynes translates the concept of 'basic interest' to 'premium for liquidity' and that of 'interest upon capital' to 'marginal efficiency of capital' (Preparata 2002). Ivanova points out 'some striking similarities between Proudhon and Keynes, as acknowledged by Dillard, Wright and Mattick' (Ivanova 2011: 217), although Dillard states '[t]here is no reason for doubting Keynes's statement that he did not see the importance of Gesell's theory until he had

[5] Nishibe mentions that 'local currency is an object of economics that, instead of "has not been treated", is rather "untreatable"'; in addition, Nishibe introduces the economic doctrines of Owen and Thompson in the UK, and Proudhon in France, who expound views on local currency (Nishibe 2003: 5–6).

[6] Although Keynes evaluates Gesell's vision as 'liberal socialism', the emphasis here is not on 'socialism', but 'liberal' (Darity 1995: 38–9). 'Indeed, "one of Keynes's main aims (as an enlightened conservative) was to save capitalism"' (Dowd in Preparata 2002: 246).

[7] 'Though less exhaustive than his treatise on money, the land part of the *NEO* [*Natural Economic Order*], dismissed offhand by Keynes in the course of his idiosyncratic exploration of Gesell's main work as undeserving of notice on account of its lack of originality, is however, an integral component of the Gesellian vision' (Preparata and Elliot 2004: 924).

independently worked out his own conclusions', and thus denies a direct influential relationship from Gesell to Keynes, and an indirect relationship from Proudhon (Dillard 1942: 64).

In recent years, even though Gesell has often been quoted in the context of local currency, his two representative works (Gesell 1958; 2007b) have never argued for local currency. Gesell's wide-ranging interests include both monetary reform and land reform, and his policy proposals are grounded in 'anarchist economics', particular his 'capital theory', which would reject classical, Marxian, and even modern economics with marginal revolution.[8] It will be explained that although anarchists and Marxist economists, specifically Kautsky and Lenin, share the same aims in many traditional points, such as human emancipation, Gesell's belief in differing methods to achieve these similar aims causes him to set his main target on the Marxian vision and manner of debate. Both anarchist and Marxian schools claim similar aims of 'abolition of exploitation' and 'realisation of freedom' but, although they use similar terms, they are quite different in content. The stances of both schools against capitalism are similar, but their different stances cannot be judged on appearance. In fact, the meaning is not essentially the same, even though the differences appear marginal. Therefore, Gesell's criticism of Marx reflects his direct stance. His thoughts, reflected as a critique of the Marxian school, should be an economic framework that encompasses the visions and methods of anarchists. Furthermore, this paper clarifies the achievements of Gesell's capital theory and expands on his visions of social reform as 'Free-Land and Free-Money' (Gesell 1958: 12).

This paper identifies three issues in Gesell's critique of Marxian economics specific to Gesell's economic doctrines, which are discussed further: 1) a market-centred vision of society, 2) an independent small producer model, and 3) a money–capital doctrine.

II Market Centred-Socialism

Gesell is qualified to be called an anarchist. As Gesell describes that '[t]he Natural Economic Order stands by itself and requires no legal enactments; it makes officials, the State itself and all other tutelage superfluous, and it respects the laws of natural selection to which we owe our being; it gives every man the possibility of fully developing his ego. Its ideal is the ideal of the personality responsible for itself alone and liberated from the control of others—the ideal of Schiller, Stirner, Nietzsche and Landauer' (Gesell 1958: 23). Gesell's anarchistic view of humankind is clear from this sentence. First, the reference to the natural economic order respecting 'the laws of natural selection to which we owe our being' indicates his application of Darwin's theory of evolution (theory of gradually developments) to the social sciences; it can be understood to set a norm for the

[8] This paper refers to 'anarchist economics' as economic doctrines in the line of Gesell and Proudhon.

way in which society is a Stirner's egoist association from the viewpoint that 'it gives every man the possibility of fully developing his ego' in a natural economic order.[9] Additionally, Gesell states that '*the free-money theory answered* the questions that *Proudhon* left unsolved' (Gesell 2007b: 373), Gesell recognises himself as a critical successor of Proudhon's theory of free credit, and from the viewpoint of Gesell's orientation to reform of land and credit, in brief, Gesell is an anarchistic socialist who emulates nature and sets a criterion of freedom for value standards. However, this does not suggest he advocated 'social anarchism' oriented toward de-marketising, such as a type of Bakunin–Kropotkin 'Communist anarchism' (Preparata 2006: 263). Rather, Gesell's anarchstic socialism is close to a type of Proudhon 'individualistic anarchism' which views a market itself as society. The expression 'individualistic anarchism' appears to be similar to 'social anarchism', and both groups indeed may pursue equitable social relationships under anarchy in same way.[10] That is, there is a single standard for uniting individuals as 'market as society' and for securing a connection among individuals in freedom and equity, and not by constructing a communistic economic system which supposes a 'community as society', such as the Bakunin–Kropotkin type. The rivalry boils down to individualistic anarchists trusting in the stability of market projects post-capitalism; social anarchists feeling apprehensive about the stability of market projects to de-marketise; and Marxian scholars finding consistency with the latter market vision. This paper equates 'market-centred socialism' (MCS) with Proudhonian–Gesellian socialism.[11]

Similarly problematic is Gesell's quote of a long sentence from Kautsky's *The dictatorship of the proletariat* (1919) in the beginning of his *Die Ausbeutung, ihre Ursachen und ihre Bekämpfung* [*Exploitation, its Causes and its Struggle*] as follows.

> 'To be exact, however, Socialism as such is not our goal, which is the abolition of every kind of exploitation and oppression, be it directed against a class, a party, a sex, or a race[…]. If in this struggle we place the Socialist way of production as the goal, it is because in the technical and economic conditions which prevail to-day Socialistic

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[9] An egoist differs from a self-interested person in the ordinary meaning. Stirner (1995) demonstrates personal ego alienated by an ego of God in processes of dialectic development in *The Ego and Its Own*, and furthermore, reveals that personal ego is even subject to thoughts of humanism since Feuerbach. Stirner describes egoists as people who hold onto 'ownness' as the master of themselves without being subject to any other people or thoughts.

[10] More correctly, we should call it 'anocracy' instead of anarchy (Preparata 2006: 619). Gesell points out an error of terminology with 'anarchy of production' being conflated with 'anarchy'. 'Often, the wrong sense of the word *anarchy* is used to accuse the private sector with reference to its *plans*. When accusing private sector participants, an economy is considered to be perfectly led by plans and with the aid of statistics. However, this thought is too naive (Gesell 2007b: 393).

[11] Although the term MCS is not generally used, this paper defines it to avoid confusion between 'market socialism' in current China and other reforming socialist countries, and 'marketism' in the meaning of neo-liberalism.

production appears to be the sole means of attaining our object. Should it be proved to us that we are wrong in so doing, and that somehow the emancipation of the proletariat and of mankind could be achieved solely on the basis of private property, or could be most easily realised in the manner [indicated by Proudhon], then we would throw Socialism overboard, without in the least giving up our object, and even in the interests of this object' (Kautsky as cited in Gesell 2007b: 352).

Although Gesell's aim is consistent with Kautsky's doctrine of the proletariat with regard to 'the abolition of every type of exploitation and oppression', their positions contain critical antagonistic points related to vision and methods of economics.

The principal issue in this argument is the advocacy of the private economy under a non-exploitative economic system. The Marxian school, such as Kautsky, negates private ownership of the means of production under a non-exploitative economic system. 'These descriptions lead inevitably to demand for the communist economic order. Both capitalism and communism create demand to pull Marxian capital–theory', and this is at odds with the egoistic nature of man clarified by Darwin and Stirner (Ibid., 354). That is, '[t]he economic order here discussed is a natural order only in the sense that it is adapted to the nature of man' (Gesell 1958: 9), and '[b]y the Natural Economic Order we mean, therefore, an order in which men compete on equal terms with the equipment given them by nature, an order in which, consequently, the leadership falls to the fittest, an order in which all privileges are abolished, in which the individual, obeying the impulse of egoism, goes straight for his, aim, undisturbed by scruples alien to economic life—scruples which he will have opportunities enough of obeying outside economic life' (Ibid., 11–2). Gesell points out the necessity of 'justified egoism' and 'equal equipment for the economic struggle' as conditions for constructing the economic order as follows. 'The prosperity of mankind, as of all living beings' would be achieved via the same 'laws of natural selection' (Ibid., 9–10, 12).[12] In addition, '[e]conomic order does not apply to human nature, so already on this basis, from the time of Adam, [humans can] only change very slowly, if at all, so virtually every Marxist must be called the proletariat: we fight for a hopeless matter' (Gesell 2007b: 354). Thus, it is difficult to accept the Marxian view of 'human nature as if it would suddenly emerge from an economic system of communism and transform into something rational. Nevertheless, Gesell would not deny being able to abolish exploitation by constructing an economic system of communism. However, he questioned whether 'oppression' and 'enforcement' would remain after the abolition of exploitation under a

[12] Thoughts of Stirner and Proudhon orient to 'a wish for communal desire within a tempered regime of private property', in other words, 'a mixed system of property balanced by the redistributive action of the public hand' (Preparata 2006: 621–2).

communist system. Because denying private ownership of the means of production will result in the nationalisation of the means of production, '[t]he first [Marxian] theory demands the *abolition of private property*, and also of the private economy, of *self-responsibility* in logical application. The distribution of products is carried out by the *State*, which *directs the production*. The principles to which distribution should occur are regulated *by law*' (Ibid., 358–9).[13]

According to Gesell, '[h]owever, *both* [Gesellian and Marxian] systems claim, to their strength, that the *main goal of socialism is to realise the elimination of exploitation completely*'. However, revolution achieved in this manner in Russia had not only removed exploiters for the time being, but caused the following: 'the Russians seem to have paid dearly [sacrificed] to achieve [the goal], such that some long for the happy times of capitalist exploiters again' (Ibid., 359). Otherwise, revolution could simply replace an old state of exploiters with a new power as a state for the sake of abolishing exploitation. Free from the world of eternal recurrence, a dramatic replacement of power holders is described in *Directions to Servants*, 'exploitation is, according to this theory, a product of violent interventions in the natural [order], by itself, which results in the regulation of the economy itself. [However, we should] eliminate these interventions to eradicate exploitation' when maintaining the conditions of the private economy (Ibid., 359). At the same time, this would create a society of egoists composed of people with equal power under anocracy.

Thus, Gesell denies that Marxian visions concerning market and ownership would lead to a system of communism of the Soviet Union-type. Therefore, anarchist economics would be grounded in the advocacy of private ownership of the means of production (real capital) and the market economy.

III Independent Small Producer Model

Denying exploitation and accepting private ownership of the means of production might be viewed as a contradiction from the standpoint of the Marxian school, which points out exploitation in production processes. However, according to Gesell, this is a judgement based on incorrect understanding of exploitation.

Certainly, socialists are defined as '*everyone involved in the fight against exploitation*', but in fact, there is 'still not a clear picture of the nature of exploitation power' among socialists. Even if it were possible to define exploitation on the basis of '*economic superiority*', there is no consistent view on what economic superiority is (Gesell 2007b: 356). This is a point of antagonism between the

[13] From the viewpoint of Gesell, although Kautsky (1919) is a criticism of Bolshevism, a future of the Kautsky-type of social democracy would result in a 'planning state' as well as Lenin-type of socialism of the Soviet Union. In addition, people do not accept the Soviet Union-type socialism, which is shown by increasing immigration from the Soviet Union to Germany (Gesell 1958: 49).

Marxian theory, which focuses on the cause of exploitation as '*the private ownership of the means of production*', and Gesell's theory, which focuses on '*the results of our defective institutions for money and land*' (Ibid., 358). If we insist that private ownership is the cause of exploitation, this theory necessarily leads to nationalisation of the means of production to abolish the market as an economic ground of freedom. Then, it is necessary to recreate the natural economic order so that it may remove the cause of exploitation by preventing the planning and intervention of the state, that is, 'the *land and money should "be socialised"*'; this is emulated by Proudhon's method to gradually liquidate the state (Ibid., 359).[14]

To support Gesell's abovementioned perspective currently, it must be proved that '*[t]he positive evidence for a non-exploitative economy is fully compatible with private ownership and the private economy*' (Ibid., 362). Gesell's thesis that the cause of exploitation is '*our defective institutions of money and land*' at the same time contains an antithesis, that is, the cause of exploitation is not '*the private ownership of the means of production*'. Therefore, Gesell must first prove the mistake of the Marxian theory of exploitation. In so doing, we must necessarily revise the significance of exploitation in Gesell's work.[15]

The mistake of Marx's theory of exploitation is also a mistake of presumption in his theory. According to Gesell, some of Marx's theses are uncritically assumed. These misconceptions of Marx are, first, his *thesis of commodity of labour power*, and second, his *thesis of equal exchange* that indicates ordinary money is nothing more than a medium of exchange because '[*m*]*oney is a perfect equivalent in the exchange of obtained commodities*' (Ibid., 360). By reading Marx's intention to criticise Proudhon under such assumptions, Gesell in turn criticises Marx using the same theoretical position as Marx.[16] In opposition to Proudhon, who pointed out exploitation in circulation processes

[14] For instance, see Proudhon's 'Fifth Study: Social Liquidation' in *General Idea of the Revolution in the Nineteenth Century* (2007).
[15] Gesell is referred to in the Preface, where he is quoted: '[t]he abolition of unearned income, of so-called surplus-value also termed interest and rent, is the immediate economic aim of every socialistic movement'; this limits the role of exploitation in surplus value in favour of interest and rent (Gesell 1958: 27).
[16] 'If Karl Kautsky had started [to summarise] from the *whole* works, he would not have been confused by the sophistry of the work, he would have [happened] on the site in [*Capital* Vol.] III. In Vol. I, in what Marx confirmed so clearly and so unmistakeably himself through a lack of apprehensive words, that to clarify the possibility of exploitation existed before entrepreneurs existed, it is "not necessary" to eliminate all exploitation because "neither natural nor artificial monopolies have to falsify commodity-exchange in favour of buyers or sellers". By that falls [Marx's] whole struggle against *Proudhon*, who said the same things, thus Proudhon was attacked disgracefully by Marx, as well as the manner of Marx in III. By the way, this is the volume which Friedrich Engels also commented on in respect of the cause of capitalist exploitation: that by holding back from the medium of exchange, [therefore by] it is possible to store money' (Schwarz 2008: 27–8).

caused by the power of money, Marx criticised the possibility of abolishing exploitation by realising equitable exchange in circulation processes by proving the possibility of exploitation under equitable exchange in circulation processes. Gesell re-critiques this view of Marx, by expressing theoretical conditions that equitable exchange in circulation processes cannot be assumed. Therefore, Gesell again proposes that the cause of exploitation is the possibility that the power of money leads to an unequal exchange in circulation processes. This reframing of the subject by Gesell can be considered to reignite the controversial debate between Marx and Proudhon.[17]

Before examining Marx's *thesis of commodity of labour power*, this paper discusses Gesell's summary of Marx's theory of exploitation and capital.

> 'The entrepreneur buys the commodity of labour power for its full value, and therefore, without exploitation. However, he does not buy labour power because of its exchange value, thus not as a merchant. He buys it as a consumer in order to consume. However, the commodity of labour power has the peculiarity that its use value is bigger than its exchange value; in other words, the consumption of a product of the commodity of labour power as a product is bigger than the production cost of labour power, and therefore, bigger than the wage. *This difference is the surplus value*. This gives us capital theory' (Ibid., 365).

The quotation clarifies that Gesell does not call the owners of the means of production capitalists, but entrepreneurs. Furthermore, entrepreneurs do not buy the commodity of labour power as merchants, but as consumers in order to use their products. This paper refers to Gesell's abovementioned construction as the independent small producer model. The subjects who appear on Gesell's theoretical stage are entrepreneurs as owners of the means of production (functional capitalists), labourers as owners of the products of labour (independent small producers), and capitalists as owners of hording money (money capitalists).

These three subjects are defined at the start via a relationship between entrepreneurs and labourers in which commodities bought by entrepreneurs are not labourers' labour power. Because labour power is not a commodity, this position encounters two difficulties in Marxian theory. First, labour *power* as the ability to work cannot be bought because only labour *products* can be bought. In order to purchase '*the will to work*' (Ibid., 363), labour must be purchased as a product due to the combination of this will and ability. Second, it is difficult to define the value of labour power using the real wage (cost of reproduction) because labour power is not a labour product; therefore, it is also

[17] However, we should pay attention to the fact that neither Gesell nor Marx notice that 'Proudhon was well aware that exploitation occurred at the point of production' (McKay 2011: 8).

not possible to grasp the difference between the concepts of value and use value of labour power.[18] On the other hand, entrepreneurs do not pay wages to labourers in advance. Because, the 'entrepreneur lends' the means of production to labourers, labourers sell or 'provide' their products of labour for 'remuneration' (interest of the means of products or interest of real capital) to entrepreneurs. This is the content of the contract of employment. Wages are paid from entrepreneurs to labourers as a selling price or 'the *piece wage*' (Gesell 2007b: 363–4).[19] By entrepreneurs offering wages to labourers, 'the offer is demanded at the employment of the labourer by the entrepreneur according to the whole products that he expects from the labourer. In addition, the labourer demands his wage depends on his labour product' (Ibid., 363). Labourers are contract producers, and entrepreneurs are merchants who sell commodities produced by entrustment.

A relationship of entrepreneurs and capitalists appears as a relationship of functional capitalists and moneyed capitalists. That is to say, moneyed capitalists lend funds for business and functional capitalists borrow funds to buy the means of production. Furthermore, decision-making and investment actions by entrepreneurs are exposed to competition for borrowing funds, which is a factor of interest rates, and, on the other hand, a kind of two sided competition to buy and lend the means of production, which is a factor of the interest rate of real capital. Competitive outcomes would then be decided by a standard correspondence between the money interest rate and the interest rate of real capital. In a money market, demand for borrowing funds increases insofar as the interest rate of money is below the interest rate of real capital, and vice versa. As for the connection with buying and lending the means of production, supply of commodities would rise in an industrial sector in which demand exceeds supply because the interest rate of real capital for this sector

[18] Gesell denies theories of value completely to describe the abstraction of labour time as a substance of value of a commodity through the so-called 'method of distillation'. In Chapter 1 Commodities in *Capital* Vol. I, 'Marx's abstraction cannot be demonstrated in any crucible [manner]', 'but the other investigators of value are no whit better'. To demonstrate, Gesell says 'the theory of value is of fundamental importance in economic science. But a theory so important in economic science should be still more important in economic practice', because '[i]n every other sphere of human activity science and life go hand in hand; in commerce alone nothing is known of the principal theory of the science with which it is connected. In commerce we find only prices, prices determined by demand and supply. A business man speaking of the value of a thing means the price that its owner would probably obtain under the given circumstances of time and place. Value is therefore an estimate which upon completion of a transaction is converted into a measured quantity of exchange products, that is, a price. Price can be measured to a nicety, value can only be estimated, that is the sole difference. A theory of price must therefore apply equally to price and to value' (Gesell 1958: 151–3).

[19] 'The *wage contract* is nothing more than a *sales contract about these commodities* made between the worker and entrepreneur. *In the case of the piece wage, this relationship will be clear*' (Gesell 2007b: 363).

exceeds the general interest rate of real capital; however, supply again would plummet to the general interest rate of real capital relative to demand.

Entrepreneurs, as assumed by Gesell, not only own the means of production but also lend the means of production, even if they do not commit to production directly; thus, this kind of entrepreneur has no ability to control the processes of production, but can set an end to production. The content of the employment relationship has been described: it is a production contract which means labourers are not different to leasehold farmers who lack the conditions to sell the products of their labour. Labourers have to sell their products by reason of having no merchant talent, but if 'the labourer were to have generally economical creditworthiness, the labourer could himself create entrepreneurial business, provided he also obtained the necessary knowledge [to do business] – *similar to what leasehold farmers do*' (Ibid. 364). In summary, labourers are independent small producers but are incompletely independent insofar as borrowing the means of production from entrepreneurs. If it is viable for them to become entrepreneurs through having 'creditworthiness' and 'knowledge', they can make the leap to fully independent small producers. The theoretical significance of the employment relationship described by Gesell does not amount to 'buying and selling of labour *power*', but rather 'buying and selling of labour *product*'. Thus, the 'independent small producer model' is entirely analytical.

In the three-subject model described above, moneyed capitalists can claim a money interest from entrepreneurs by reason of money scarcity and monopoly. By the same token, entrepreneurs can claim a real capital interest from labourers by reason of scarcity of the means of production and monopoly thereof. Both moneyed capitalists and entrepreneurs hold the power to claim interest based on the scarcity of resources. However, it is not primary scarcity of the means of production, but money scarcity. The scarcity of money makes labourers unable to buy the means of production and, as a result, they must be reconciled to accepting the situation of paying dual interest for money and real capital.[20]

Interest earned as surplus value in the processes of circulation is obtained by '*economic superiority*' caused by primary scarcity and monopoly of money. If that is the case, both the scarcity and possible monopoly of money would lose the property of abundant money supply. Furthermore, money interest might fall to zero ultimately. Because of losing the scarcity of the means of production, where possible, can be bought by money that does not bear interest, and it is possible that the interest of real capital would also fall to zero. With the '*economic superiority*' of money, in other words, the power of money to fall, money interest would also disappear. This is Gesell's

[20] 'Capitalism – [a]n economic condition in which the demand for loan-money and real capital exceeds the supply and therefore gives rise to interest' (Gesell 1958: 244).

proposition of 'free money' that dismantles the power of money; anyone can obtain money freely by supplying money abundantly. On the other hand, Gesell points out that Proudhon 'is a dangerous fellow since there is no denying the truth of his contention that if the workers were allowed to remain at work without hindrance, disturbance or interruption, capital would soon be choked by an over-supply of capital (not to be confused with an over-production of goods)' (Gesell 1958: 28), and describes this perspective as 'a sea of capital flooded from the old marginal income. *The interest rate will drown in the sea of new capital*' (Gesell 2007b: 377).[21]

IV Theoretical and Conceptual Background of the Independent Small Producer Model

This paper defines Gesell's economics as 'the independent small producer model'. However, how would this translate into an analytical model? In reality, it might be impossible not to point out the existence of labourers in the sense of propertyless labour power. This must be incorporated as several theoretical and conceptual conditions into a theoretical economic model for the sake of positioning the subject as independent small producers.

To understand the first condition, we must seek to establish 'the economic subject' as 'the subject of human emancipation', and in which social hierarchy and classes. Just as the Marxian school adopts a cold theoretical position that ranking of the independent small producers would fail in the competition of the capitalist market, it can be said that anarchists, in general, take a cold attitude toward the non-autonomic working class in their theory and thought. Graeber states that '[a]narchists have never been much interested in the kinds of broad strategic or philosophical questions that have historically preoccupied Marxists' (Graeber 2004: 5–6). This is because it is unproductive to have reservations about constructing 'high theory', to address questions such as '[a]re the peasants a potentially revolutionary class?' and '[w]hat is the nature of the commodity form?', for the purpose of exploring 'an ethical discourse' and 'forms of practice' (Ibid., 6–7). Nevertheless, Graeber, comments that Bakunin 'claimed that revolution should come not from the most alienated people in advanced capitalism, but from small farmers and artisans in Russia and Spain who maintained traditional autonomy. And, Bakunin was right' compared to 'the traditional Marxist explanation that revolution would be realised by industrial workers in the UK and Germany, the most advanced industrial powers in those days'; Graeber then identifies 'small farmers and

[21] According to Gesell, we should not choose strikes as Marxians claim, but rather create a situation in which moneyed capital cannot obtain interest by performing labour to create an over-supply of capital, which would further decrease the interest rate of real capital. Excess capital decreases interest and rent and, on the other hand, must raise the scarcity of labourers relative to increasing wages. Excess capital, in general, could produce a moment of crisis under capitalist production, in which a stationary situation occurs that clears away excess profits under a 'free economy'.

artisans' as being 'simultaneously the least alienated and the most oppressed people' (Graeber 2006: 11–2).[22] Indispensable propensities for anarchist economics include 'a spirit of self-aid' and 'a feeling of self-esteem' by autonomic subjects having the ability to make decisions about their management.[23] However, they have not sufficient qualities to become historical subjects for self-emancipation, because 'employed workers' have neither abilities to earn their own living nor decision-making for their management as they have lost the indispensable propensity of self-esteem. The first condition shows not only that anarchist economics is an analytical theory but also that reductionist conditions from their vision must be included if economics is to have clear goals, such as 'abolition of exploitation' and 'realisation of freedom'.

The second condition is an assumption of a social foundation of unowned land and free-land (Gesell 1958: 52), which means labourers would not be propertyless. Dependent on uncultivated and unowned land around society, this opens the theoretical possibility of the self-managed farmer for those labourers who are not satisfied with their wage amounts and who can cultivate this land.

Gesell classifies free-land into three classes. '[F]reeland of the first class' is represented by 'the vast tracts of uncultivated land in North and South America'. This free-land can be moved to freely and cultivated to own. '[F]reeland of the second classes' is the wider fields of 'America, Africa, Australia and Asia', which is not owned by anyone, 'however, large areas that are not cultivated, but which by some abuse of State-power have become the private property of individuals living in some far-off place' (Ibid., 52).

'The most important freeland, however, and that which is also of greatest significance for the theory of rent and wages is freeland of the third class' (Ibid., 53). This is free land which can be created continuously by improving the way land is used, for example, in Germany. In general, Gesell's 'freeland of third class' would create superior land from inferior land by improving agricultural techniques to increase harvest quantities from the same square of land. This example shows the creation of 'freeland' by improving the way of using urban land. This could be considered as 'the space above the storeys already in existence, up to the clouds, as free building land' (Ibid., 55). If storeys were to be built toward outer space in this manner, the result would be that the rest of land 'would form a surplus' with the effect of falling land rent (Ibid., 53). Gesell presents a second example, a case in which expansion of inferior land disables differential rent. Furthermore, improved techniques make it possible to cultivate untouched land, which would create land profitability based

[22] Graeber's review of Bakunin would not be fair, because Bakunin also focuses on wage slavery.
[23] 'The work bears witness to this "peace-dripping" spirit, which is ultimately the feeling of strength and security, and meets anyone who is aware of making himself this. However, this sense of security is a precondition for clear thinking and fair judgments' (Gesell 2007a: 226).

on whether there was differential rent. Thus, 'freeland of the third class' is created by improvements in the way of using land, such that land would not secure differential rent (Ibid., 54).

Therefore, it is theoretically possible for all land in Germany to transform into the 'freeland of the third class'. In addition, 'the farm-labourer may at any time take refuge on this freeland if dissatisfied with his wages. The wages of farm-labourers cannot fall permanently below the proceeds of labour on such freeland of the third class, any more than they can fall below the proceeds of labour on freeland of the first class' (Ibid., 55).[24] That is, the amount of minimum regulated income of labourers would be 'the proceeds of labour' in the 'freeland', and by the movement of labour in electing whether to receive wage employment or cultivate 'freeland'.

Free-land has existed widely as already described, with excess profit on the superior land exploited as differential rent accruing to the existing landowner. It would be necessary to transform the differential rent into treasury revenue through nationalisation of land in order to abolish the form of exploitation that is differential rent. This is a Gesell's perspective of land reform. It appears similar to the Marxian school criticised by Gesell in the method of nationalisation of land but, needless to say, they are not the same. Certainly, while the state also owns land in Gesell's proposition, it does not interfere with the way to use land. The right to usage would be lent for a certain period alongside the manner of use entrusted to private managers.[25] Further details on the plan are described hereafter. Specifically, Gesell makes mention of two sentences in which policies are enacted through the nationalisation of land as follows.

> 'Sentence 1. All countries which join the big league of peace replace completely the special ownership of land (private ownership). The land is then the property of the people and the land is rented to private management which tendered the highest price in the public bidder system.'
>
> 'Sentence 2. Everyone can participate in the public leases….'
>
> 'The rent money is distributed evenly and completely to women and children without distinction [to their origin]…' (Gesell 2007a: 68).

Sentence 1 shows the policy is compatible with a free competitive market society. In the trade relationship of these countries, 'agrarian specific interests' and 'the horrible thoughts of closed trade state' will become extinct, bringing a freer market society (Gesell 2007a: 69). In other words, it

[24] 'Freeland of the first class' is not committed to forming standards for the proceeds of labour because it is always higher than non-rented 'freeland of the third class'.

[25] Subjects who participate in public leases are not limited to individual and private management. Insofar as they agree with 'freeland', the institution includes '[a]lso large tracts for communistic, anarchistic, social-democratic colonies, for co-operative societies, or religious communities' (Gesell 1958: 89–90).

would clear away those who appropriate the rent of land, and 'attacks the class state at its source' (Ibid.). Of course, the banishment of landowners should not be forced such that '[t]he rent thus calculated is then capitalised (capitalisation of rent refers to the sum of money which would yield interest equal to the rent) at the mortgage rate of interest, and this amount is paid to the landowners in interest-bearing state securities' (Ibid., 73). These plans would be followed as a process of socialisation of land proposed by Proudhon. On the other hand, the free public bidding system declared in Sentence 2 supports the freedom of movement of labourers, which is a condition for equitable competition. Labourers push up the price of land on expectations of higher proceeds of labour, which in turn pulls down the bidding price. The bidding system works as described above, and consequently, the proceeds of labour are oriented toward equalisation socially. However, in this case, the motivation would not be lost to find a bigger difference between the expected proceeds of labour and the actual bidding amount, hence, the disparity is not solved from the difference of competencies as merchants of bidding entrepreneurs. Rather, this case recommends the transfer of excess profits over average profits to labourers in order to maintain their power to drive the economy. Lastly, rent as surplus value will be redistributed by the state for women and children.[26]

Therefore, a land nationalisation policy would abolish exploitation as a goal of socialism, and maximise the income of individuals as 'the whole proceeds of labour' (Ibid., 36). However, 'the whole proceeds of labour' would not be an individual concept but rather '[t]he right to the collective whole proceeds of labour' (Ibid., 38). This collective category of income is Gesell's concept of class. Its content is to maximise the whole proceeds of the labouring class, by removing the income of the landowner's class.[27] However, maximising the whole proceeds of the labouring class by nationalisation of land would not involve equalisation of individual income and would not even secure the minimum wage. Those who hold the competence to be merchants might obtain excess higher than the average for the same products, while professional occupations need to 'some natural physical aptitude (such as singing, for example)' and 'workers who perform the most highly qualified work are most securely withdrawn from the competition of the masses, and are therefore able to obtain the highest price for the product of their labour' (Ibid.). In summary, the proceeds of labour will not be 'determined arbitrarily, but by the conditions of the market' by demand and supply of the products of labour (Ibid., 39).

A Doctrine of Money–Capital

[26] 'This economic strength and economic independence will of course change the whole relationship of man to man; manners, customs, speech and character will become freer and nobler' (Ibid., 114).
[27] In short, Gesell's use of the term 'proceeds of labour' should be understood to mean real wages in kind.

We move on to an examination of Marx's *thesis of equal exchange*. Gesell states that '[t]he *free money theory* also researches the nature of Marx's formula of exchange of capital, M–C–M′ (money–commodities–surplus money)' (Gesell 2007b: 366). 'However, it does not imply, as *Marx* does uncritically, that the money is a perfect equivalent of commodities' (Ibid.). Marx narrowly defines money as the equivalent of commodities in his formula whereas the free money theory found in 'Marx is formulated by general design of exchange for which there is evidence that money is more than an equivalent' (Ibid.). Even though Marx, in *Capital*, states that profits will be produced incidentally by nothing less than the fraudulence of merchants, and that commodity and money are exchanged equitably in the processes of circulation, the free money theory understands that '[t]he Marx's formula M–C–M′ is *a proof that is right for them* that money is independent capital, and that M′ is not a product of eternally repeated fraudulence but *the result of superiority of the money owner over the owner of commodities, and thus, the product of an economic power factor*' (Ibid.)

The question of '*why money as capital may be against commodities*' has been answered to focus on 'the nature of things' as money (Ibid.). Under a production system involving division of labour, 'commodities are their contractor and their owner is directly useless. To take advantage of them, commodities must be *replaced*' (Ibid.). Then, from the standpoint of the owner of commodities, money would be claimed as a '*medium of exchange*', the owner of money would not have to respond to their claims in the order of the essential difference of 'the nature of things' (i.e., commodity and money). This is because gold as money must not be exposed to a loss of things in any proceeding period. The owner of money loses only an opportunity to earn interest on money that is lent. To the contrary, commodities as things would incur various types of losses and natural degradation over time that otherwise must maintain these qualities. In spite of there being few costs for keeping and carrying over money, there are substantial costs in relation to commodities. Commodities degrade on a daily basis, and must be sold as soon as possible, whereas money is not forced to degrade and there is no motivation to quickly exchange it for commodities. For this reason, money as a medium of exchange would result in hoarding money because of its superiority to the use value of materials, and furthermore, horded money would turn into capital. Material commodities cannot be hoarded because of their inferiority in respect of keeping value. The means of production supposed by the Marxian definition of capital holds that materiality equals other commodities at this point. Degrading commodities have no capacity to become capital, and only money that is hoarded would be capital.

Gesell refers to the disparity of 'the degradation rate of capital' between commodities and money that would occur from the difference of 'the nature of things' as follows. '*It is so obvious that here is not full equivalence*, that the money owner rules the owner of commodities by a special compensation. This request can be waived by the owner of commodities carrying over trade to create a direct *loss of substance*' (Ibid. 369). '*Money is debunked as independent capital. There is no perfect equivalence. Money is more. And this extra value creates surplus value*' (Ibid. 370). In other words, the disparity of 'the degradation rate of capital', through creating an asymmetric relationship of power between commodity and money, would create money interest or surplus value. Gesell defines the interest charged by the power of money as 'basic interest' (Gesell 1958: 371). According to Gesell, a mistake of Marx is his definition that money in fact works as a medium of exchange, which overlooks the issue of hoarding money. Therefore, Marx has not noticed that money is capital, and has wrongly defined real capital (the means of production), which is inferior in use value as capital. The use of gold as money would lead to the economic power of money from the material superiority and scarcity, then, it must be close to ideal form as a pure medium of exchange by depriving its position as money, alongside general commodities which are transformed into material things that cannot be hoarded.

Although Gesell also agrees that the function of money should be limited as a medium of exchange, Marx mistakenly brought the ideal symbol of money into the level of analytics. Consequently, the mistake of Marx's capital theory would result in the doctrine of material things being capital, which appears as the means of production being equivalent to capital.

However, it seems to be impossible in the ordinary state that 'basic interest' is collected through the asymmetrical relationship between the owners of commodities and the owners of money in the processes of circulation. The reason for this is explained by a contradiction in words in the following example. Suppose that 100 pounds of money does not equal to 100 pounds of commodity. Money holds economic power, in the sense of obtaining 'basic interest' through the purchase of a commodity. If an owner of money *A* buys a commodity equivalent to 105 pounds with 100 pounds of money, whenever *A* resells her commodity that is equivalent to 105 pounds, she has to pay 'basic interest' to an owner of money *B* who holds economic power. Consequently, *A* cannot retain the 'basic interest' in her hand. Likewise, it would not make sense to buy a commodity worth 105 pounds with money worth 100 pounds. What does this mean for the superiority or inferiority of the nature of use value that would degrade the equivalence of the commodity and money? It would not be unreasonable to be suspicious that price always shows an equivalence at the closing of buying and selling.

Furthermore, consider the following. Supposing that 'basic interest' is collected for the difference of the degrading rates of commodity and money, when an owner of money worth 100 pounds and an owner of a commodity worth 100 pounds is exposed to a physical loss of 5 pounds a day in the moment of exchange, even if the 5 pounds difference of the degrading rates can be collected, what processes would be required to ensure the collection of 'basic interest'?

Gesell explains the process of collecting the 'basic interest' by an owner of money in the 'general formula of capital' as M–C–M′.

> 'Money claims interest for each time it is used, somewhat as a cab claims a fare. Interest is counted among the general expenses of commerce and collected with these—it is immaterial whether [it is] as a deduction from the price paid [to] the producer or as an addition to the price demanded from the consumer. As a rule the merchant can estimate by experience the price which he can obtain from the consumer. From this price he deducts the costs of commerce, wages for his own work (net profit of commerce), and interest. Interest is calculated by the average time, known to the merchant by experience, which elapses between the purchase and the sale of his merchandise' (Gesell 1958: 384).

This quotation appears to refer to an entrepreneur acting as merchant who directly collects 'basic interest'. By Gesell's explanation, it is not decided whether the deduction of the cost added as 'basic interest' to the primary cost of the sales price would be 'net profit of commerce'.[28] 'Basic interest' deducted from the sales price would be paid by the entrepreneur to the moneyed capitalist as the lender of funds. The producer has nothing more than a means or ability to sell her products at any moment, and must transfer commodities to the merchant. Furthermore, the economic superiority of money creates a disparity in the possibility of waiting to exchange between commodities and money, and the disparity would depress the price of the producer. To revisit the abovementioned example, the merchant with 100 pounds of money would be pressed to discount the commodity price that could be sold at 105 pounds to an equitable transaction at the price of 100 pounds. The sales price for the consumer would be 105 pounds, and the difference of 5 pounds would include both the 'net profit of commerce' and 'basic interest'. That is, 'the tribute is contained in the difference between them', which refers to the price of the consumer and the price of the producer. It has to be noticed that this is on condition that '[t]he tribute can be levied only on the sale of wares, and requires the fulfilment of one essential condition: [d]uring the interval between buying and selling a product, its price must not fall' (Ibid., 230).

This would explain why Gesell's market vision should be called the theory of 'market conditions' (Ibid., 168). As described, stable prices have to be shifted under certain terms to obtain 'basic interest'. However, such a stable situation does not occur commonly under the forceful actions of the owners of money. In the economy characterised by division of labour, the owner of a

[28] The quotation from Gesell makes it clear that the concept of profit is defined as the wage of the merchant and entrepreneur, which would be categorised as labour income.

commodity has to exchange her commodity for money to purchase a commodity that she wants, using money exchanged to buy the commodity. Furthermore, although commodities have a natural propensity to age over time, money has immortality without aging. Owners of material things take into account their asymmetrical natural property in the relationship of exchange, whereby the commodity owner considers avoiding the degradation loss by selling quickly; otherwise, the owner of money waits for a market situation in which she could buy favourably through the natural superiority of money. In the case in which an owner of a commodity wants to buy another commodity more quickly, a higher rate of 'basic interest' would be claimed. Therefore, '[t]he longer sale is delayed, the less favourable the market conditions' (Ibid., 225). However, under the economy characterised by division of labour, this is an ordinary market situation for all participants. However, according to Gesell, 'those of us who are unable to grasp this ghostly property of commodities called value, and who therefore regard the exchange of commodities as an action, and the commodities and state of the market as accessories of this action, will be able to discover no other motive for such action than the desire common to all owners of commodities, [which is] to give as little as possible and to receive as much as possible' (Ibid., 163).

The 'state of the market' is characterised by unpredictable incidents. Briefly, this means that an owner of money waits for the chance to buy a degraded commodity price amid the general tendency of falling prices. Over the term of falling prices, when it would be difficult to collect 'basic interest', the merchant holds back on purchasing commodities. In this case, 'a general opinion that prices will fall' spreads among merchants and owners of money would reduce their demand even further (Ibid., 232). 'But prices fall just because the supply of money is insufficient' (Ibid., 231). In spite of declining prices in order to decrease demand, the decline of demand would be caused by falling prices. '**This, therefore, is the law of demand, that it disappears when it becomes insufficient**' (Ibid., 235). 'The equilibrating forces, of which so much is written, never come into play. The evil is intensified, not mitigated; there is no sign of any compensatory tendency' (Ibid., 234). Money, as far as it includes the power to claim 'basic interest', would tend toward a shortage of 'the supply of money' to bring about a crisis of under-consumption (Ibid., 231). In contrast, the owner of money threatens to present '[n]othing of the kind; they try to effect the sale by reducing their prices, they all try to attract money by lowering their claims' (Ibid., 331). This applies to producers that forgo buying as a 'strike of money' aimed at excluding 'tribute' under unfavourable market conditions (Gesell 2007b: 376). This occurs as the difference between price for consumers and prices of producers. By clarifying these processes of transaction, the law of demand could be explained by the exploitation of surplus value not relating to whether its existence is created by production processes.

However, at the same time, it should be questioned what it means to produce a residue of production that is equivalent to the collection part of 'basic interest'. In other words, does this theory exclude the logical possibility of creating surpluses in the processes of production? To revisit the earlier example, products equivalent to 5 pounds are transferred to the owner of money, which would otherwise be owned by the producer under a scenario of no superiority of money. These products, certainly, have been exploited, but the debatable aspect is who they are owned by. Of course, by Gesell's claims, money forces producers to discount, and producers will always be the final payer of interest. This is certainly the case if we reconsider that Gesell's capital theory could prove the possibility that exploitation of the processes of circulation do not relate to the production of surplus products that create surplus value under the processes of production.

On the other hand, in order for Gesell to concentrate on the concept of capital as money–capital, it is not possible to view material things completely; in other words, commodities could also be capital. Even if it is supposed that the means of production are not capital, it can be questioned whether commodity capital as stock and work-in-progress is excluded from the concept of capital. This issue relates to Gesell's theory of monetary reform. Gesell's theory of free money is a policy that involves the claimant levying a carry-over fee on money which is similar to the rate of the natural degradation of material things. The theory does not take into account that the value of commodities can carry over; moreover, commodities might increase in order to define capital only as money. Therefore, Gesell must have a strong supposition that 'requires the fulfilment of one essential condition: [d]uring the interval between buying and selling a product, its price must not fall', however, it is not necessary to hold capital in a form of money in the period of raising prices to maintain and increase the value of capital in the form of commodities. In addition, Gesell diminishes his concept of capital to compensate for concentrating money–capital as the concept of capital. On the other hand, it is too narrow to view the concept of decreasing value as physical wearing. This is because non-monetary financial and asset commodities could maintain their value without physical loss. Hence, for consistency with Gesell's theory of free money, as pointed out by Soddy, the object of levying would expand to all financial assets (Soddy in Seccareccia 1997: 133).

Although Gesell himself defines the doctrine of money as capital theory, and criticises the Marxian 'doctrine of material things as capital theory', this would be a somewhat slipshod critique of *Capital*. According to Gesell, Engels correctly understands capital as hoarding money, as Engels explains the transformation of hoarding money into capital, described in *Anti-Dühring* as follows.[29]

[29] Furthermore, Schwarz, in referring to the same description of Engels criticising Marx, interprets material things as capital by pointing out that hoarded money is capital. Moreover, Engels' claims contradict even the value theory of labour (Schwarz 2008: 9).

'If Dühring wants to keep metallic money, he therefore cannot prevent some from setting aside a small money hoard, while others are unable to make ends meet on the wage paid to them…on the one hand to form a hoard, and on the other to run into debt…. And, *as the builder of the hoard is in a position to extort interest from people in need, usury is restored along with metallic money functioning as money*…. The usurers are transformed into dealers in the medium of circulation, bankers, controllers of the medium of circulation and of world money, and thus, into *controllers of production, and thus, into controllers of the means of production*' (Engels cited in Gesell 2007b: 374; stressed by Gesell).[30]

However, because Marx has also argued that money as capital has to be hoarded before discussing 'the transformation of money into capital' in *Capital*, Marx's theory cannot be considered a theoretical antagonism of 'money as capital theory' and 'material things as capital theory'. It could be described rather as an issue of stipulating the value of money. In opposition to the 'material things as capital theory' which stipulates the value of money as the production cost of materials, the logic of critiquing 'material things as capital theory' is foreshadows developing a doctrine of fiat money.

We should understand that Engels' description is intended to criticise directly Dühring's theory of labour money. A summary of Gesell's earlier quotation is as follows. Dühring intends to realise 'an exchange of "equal labour for equal labour"' (Dühring in Engels 1987: 286) by using metallic money (labour money) being the standard of value in labour time. However, Dühring does not accept individual hoarding of money, and is not aware of the possibility of circulating metallic money as world money outside of communities. If labour money with gold material as a standard value of labour time includes the opportunity to transform hoards of money by individual accumulation, it would translate to '*metallic money functioning as money*', and the possibility would remain of transforming it into capital through investment and management in a world market of metallic money. The standard value of labour time is not a sufficient condition to prevent labour money from functioning as money. Money hoarders appear to be moneyed capitalists in the beginning, turning '*into controllers of the means of production*' to be industrial capitalists. On the other hand, Owen's labour notes are evaluated with a clear design of institution in order to prevent the transformation of labour notes into capital. Engels' criticism of Dühring is not a criticism of Marx about whether money is capital, or material things as capital, but rather a criticism of Dühring as a labour money theorist. Based on this implication of Engels' critique, Gesell's free money theory must show that it would not transform free money into capital, and commodities (Gesell's material things) into capital when activating the system of commodity production.

[30] The sentence '[i]f Dühring wants to keep metallic money' does not exist in the original text (Engels 1987: 289).

Lastly, this paper refers to Gesell's theory of fiat money as a criticism of the doctrine of commodity money. Commodity money theorists claim that precious metals equate to money offered at a value of money decided by the material value of commodities. To the contrary, Gesell proposes that if monetary value is decided by the material value of money, then the exchange of commodities and money would be nothing more than a kind of barter. If 'the money is a perfect equivalent of the commodities', it seems that equity in both can be measured by their production cost, which is price. However, price is 'the ratio of exchange between money and wares' (Gesell 1958: 191). If it is assumed that equity is measured by their price, what price would be given? On this issue, Marx uses the labour theory of value by introducing a third measure as the amount of labour bestowed to avoid such self-contradiction (Obata 2005: 56). However, in opposition to this Marxian solution, Gesell denies Marx's logical abstraction to stipulate the value of a commodity by the amount of labour bestowed.

Gesell's 'money–capital theory' criticises the logic of first, the transformation of material things into capital, but also second, the exchange of money and commodities as equivalent. The logic of money being equivalent to commodities conflicts with Gesell's claims that any material value of money is not money, and that money is essentially a medium of exchange which is unrelated to its material value and its back by assets. Gesell's stipulation that the equitable exchange of money and commodities with regard to value theory is nothing more than words of barter does not correctly understand the property of money exchange. In addition, owners of commodities do not take into account the relationship of exchange with the aim of monetary value, that is, to use usefulness as a medium of exchange. In other words, value is not money, but use value (medium of exchange) is money. Therefore, this supports the stipulation of the money theory of quantity (index of prices); that '[t]he quantity of money alone is of importance, for upon it, partly, depends the magnitude of the supply of money and the amount of commodities that we ca[n] buy for it' (Gesell 1958: 176).[31]

From beginning to end, Gesell's capital theory was developed with a criticism of Marxian doctrine in mind. Therefore, Gesell's doctrine should be contextualised within a mirror of

[31] Although Gesell is a fiat money theorist, the practical successes of his theories cannot also be said to have grounding in fiat money. This is because, with both *Wära* in Schwanenkirchen and *Arbeitsbestätigungen* in Wörgl, enterprises and local governments were issuers of local currency secured assets for paying the salaries of public officers and the costs of public works. Thus, there is an unclear route for supplying currency in terms of Gesell's theory of fiat money, as successful local currencies issued have been paid as an equivalent of labour and enterprise. This remains to be evaluated. Kanagawa prefecture in Japan, which has issued a local currency known as LOVES (Local Value Exchange System, 2002–7), would otherwise make a remarkably similar mistake to the theory of fiat money as its local government has issued 10,000 units among about 90,000 civilians.

understanding Marx's capital theory as a mixture commodity theory of money and 'material things as capital theory'.

Gesell's capital theory and social vision is summarised as follows. Gesell's capital theory is that money can collect interest from material things that degrade naturally in order to use unnatural property as a use value of immortality. Therefore, 'material things as capital theory' is incorrect. This is because considering the means of production as material things can be positioned against inferior natural property, which makes exploitation possible. The interest of real capital must essentially be explained from the interest of money. In addition, Gesell denies the view of class society as a base for 'money-capital theory'. Profit, which appears as surplus value to Marx, is at its origin the proceeds of labour, without regard to exploitation. Rather, from the viewpoint of surplus value, profit should be explained as antagonism of social categories in which income divides a class that obtains the proceeds of labour and a class that obtains unearned income. Although this paper could not survey all Gesell's policy claims, Gesell's money reform and land reform is deemed to make unearned income the national budget, and maximises the amount of labour income thorough its redistribution. As argued in the first part of this paper, Gesell's vision supports policies in which philosophical norms, such as nature, freedom, and labour, are interpreted as independent small producers, whose existence expresses these normative concepts collectively in the basic subject in anarchist economics. The essence of 'market-centred socialism' would be concentrated as a vision that creates an economic order centred around the mechanism of a 'non-exploitative market' or 'non-capitalist market' and based on the economic subject of independent small producers and institutional reform of money and land.

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References

Aida, S. (2014) *Silvio Gesell Kenkyū* [*A Study of Gesell: Silvio Gesell and the Natural Economic Order*]. Tokyo: Pal Publishing.
Barber, W. J. (ed.) (1997) 'Correspondence and Other Commentary on Economic Policy, 1930–47'. *The Works of Irving Fisher* 14. London: Pickering & Chatto.
Blanc, J. (1998) 'Free Money for Social Progress: Theory and Practice of Gesell's Accelerated Money'. *American Journal of Economics & Sociology* 57(4): 469–83.
Darity, Jr., W. (1995) 'Keynes' Political Philosophy: The Gesell Connection'. *Eastern Economic Journal* 21(1): 27–41.
Dillard, D. (1942) 'Keynes and Proudhon'. *Journal of Economic History* 2(1): 63–76.
Engels, F. (1987 [1878]) 'Anti-Dühring'. *Marx & Engels Collected Works* 25. London: Lawrence & Wishart.
Gesell, S. (1958 [1920]) *The Natural Economic Order*. London: Peter Owen.
Gesell, S. (2007a [1920]) 'Einleitung. Freiland, die eherne Forderung des Friedens. Vortrag gehalten in Zürich am 5. Juli 1917 [Introduction: Free-Land, the Essential Condition of Peace. Lectures in

Zurich 5 July 1917]'. In 'Die natürliche Wirtschaftsordnung durch Freiland und Freigeld, 4 letztmalig vom Author überabeitete Auflage'. *Silvio Gesell: Gesammelte Werke* 11. Gauke: Berlin.

Gesell, S. (2007b [1922]) 'Die Ausbeutung, ihre Ursachen und ihre Bekämpfung: Eine Gegenüberstellung meiner Kapitaltheorie und derjenigen von Karl Marx; Vortrag gehalten in der sozialistischen Vereinigung zur gegenseitigen Weiterbildung in Dresden, 8. Mai, 1922'. *Silvio Gesell: Gesammelte Werke* 13. Berlin: Gauke.

Graeber, D. (2004) *Fragments of an Anarchist Anthropology*. Chicago: University of Chicago Press.

Graeber, D. (2006) 'Madaminu Nihon no Dokusha he. [Preface to unseen Japanese Readers]'. *Anarchist Jinruigaku no tameno Danshō*. [*Fragments of an Anarchist Anthropology*]. Tokyo: Ibunsha.

Hodgson, G. M. (1999) *Economics and Utopia: Why the Learning Economy is not the End of History*. London: Routledge.

Ilgmann, C. and Menner, M. (2011) 'Negative Nominal Interest Rates: History and Current Proposals'. *International Economics and Economic Policy* 8: 383–405.

Ivanova, M. N. (2011) 'Can "It" Happen Again: The Limits of Money Artistry'. *Critique* 39(2): 211–32.

Kautsky, K. (1919) *The Dictatorship of the Proletariat*. Manchester: The National Labour Press.

Keynes, J. M. (1973 [1936]) 'The General Theory of Employment, Interest and Money'. *The Collected Writings of John Maynard Keynes* 7. London: Macmillan.

McKay, I. (ed.) (2011) *Property is Theft! A Pierre-Joseph Proudhon Anthology*. Edinburgh: AK Press.

Marx, K. (1996 [1867]) 'Capital, Vol. I'. In *Marx & Engels Collected Works* 35. London: Lawrence & Wishart.

Morino, E. (2000) 'Wasurerareta Shisouka Silvio Gesell: Rouka suru Okane no Riron to sono Jissen no Ayumi [The Forgotten Thinker Silvio Gesell: A Development of the Theory and Practices of Aging Money]'. *Ende no Yuigon: Kongen kara Okane wo Toukoto* [*Testament of Ende: An Original Inquiry of Money*]. Tokyo: NHK.

Nishibe, M. (2003) *Chiikitsūka to Chihoujichi* [*Local Currency and Local Governance*]. Tokyo: Koujin no Tomo sha.

Obata, M. (2005) 'Kaheizouka to Kachizousyoku: Kahei no Shihon heno Tenkasetsu Hihan [Increasing Money and Proliferating Value: A Critique of the Transformation of Money into Capital]'. *Economic Review of University of Tokyo* 71(1): 48–77.

Onken, W. (2000) 'The Political Economy of Silvio Gesell: A Century of Activism'. *American Journal of Economics and Sociology* 59(4): 609–22.

Proudhon, P. J. (2007 [1851]) *General Idea of the Revolution in the Nineteenth Century*. New York: Cosimo.

Preparata, G. G. (2002) 'On the Art of Innuendo: J. M. Keynes' Plagiarism of Silvio Gesell's Monetary Economics'. *Research in Political Economy* 20: 217–53.

Preparata, G. G. (2006) 'Perishable Money in a Threefold Commonwealth: Rudolf Steiner and the Social Economics of an Anarchist Utopia'. *Review of Radical Political Economics* 38: 619–48.

Preparata, G. G. and Elliot, J. E. (2004) 'Free-economics: The vision of reformer Silvio Gesell'. *International Journal of Social Economics* 31(10): 923–54.

Schwarz, F. (2008 [1951]) *Das Experiment von Wörgl: Ein Weg aus der Wirtschaftskrise*. Synergia Verlag: Darmstadt.

Seccareccia (1997) 'Early Twentieth-Century Heterodox Monetary Thought'. *Money, Financial Institutions and Macroeconomics*, Cohen, A. J., Hagemann, H. and Smithin, J. (eds.). London: Kluwer Academic Publishers, 125–39.

Stirner, M. (1995 [1845]) *The Ego and Its Own*. Cambridge: Cambridge University Press.

Zhiyuan, C. (2003) '"Xiaokang Socialism": A Petty-Bourgeois Manifesto'. *The Chinese Economy* 36(3): 50–70.

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Recent Development on the Crisis Theory in the Uno School

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Introduction

Kozo Uno (1897–1977) is one of the most influential Marxian economists in Japan and his works are indispensable in order to understand the formation and development of Marxian crisis theory by Japanese academics. Uno studied Marx's *Capital* intensively and his profound and critical reading led him to establish an utterly original theoretical framework on the basis of Marx's analysis. His influence on Japanese Marxians was so decisive as to bring about the rise of what is called the Uno school after the Second World War in Japan. Since Uno's arguments differ greatly from what Marx insisted in many respects, there occurred fierce debates between Uno's followers and their opponents. Crisis theory is one of the most important subjects among those discussions. The most representative work in Uno's theoretical studies is *Principles of Political Economy*, which has an English translation (Uno[1977]), but it includes little investigation on crisis presumably because what he did in Uno[1977] was the reorganisation of the overall system offered in three volumes of *Capital*, which lacked a clear and consistent view on crisis. In order to understand Uno's own view on crisis theory, we need to look into another book titled *Theory of Crisis* (Uno[1953]). Here in this article, we overview several essential features in Uno's crisis theory mainly developed in Uno[1953] and trace major progress achieved by the Uno school[1].

What distinguished Uno's crisis theory most apparently from other Japanese Marxians has been its emphasis on the increase in wages as the fundamental cause of crisis. Indeed, most Marxians at that time in Japan regarded overproduction of commodities rooted in the basic contradiction of capitalism between "the social character of production and the private character of appropriation" (Lenin[1963]p.167) as a cause of crisis, often making use of "reproduction schema" as a tool for theoretical formulation. This academic environment was an adversity for Uno as he

[1] Uno's purely theoretical literature first appeared as the two volumes of *Principles of Political Economy* in 1950 and 1952 respectively (Uno[1950,52]). It was just the next year, in 1953, that he published *Theory of Crisis*. This is the first and last book on crisis theory written by Uno, although he continued to write a number of articles on this topic until his final years of life. Meanwhile, he rewrote his book on the theory of political economy in 1964. This 1964 version is much shorter and more compact than the previous one and was translated into English by Thomas Sekine (Uno[1977]).

Itoh[1980] should be referred to as the most noteworthy work introducing the crisis theory in the Uno school. During nearly 40 years since its publication, further developments were achieved on various topics related to crisis theory, including Itoh's own contributions after the publication of Itoh[1980].

insisted that the buying and selling of labour–power should be recognised as the basic contradiction of capitalism and that the rise in wages in labour market must lead to the fall in profits gained by industrial capitals and precede the crisis accompanying the resultant overproduction of commodities. Insofar as we observe this difference between the mainstream Marxian crisis theory and Uno's, the discussion in the latter can be characterised as the Japanese version of overaccumulation theory or profit squeeze theory. However, the characteristics of Uno's crisis theory should not be reduced to this aspect. In order to capture the originality in Uno's approach in its entirety, we must take into consideration his achievements with respect to other fields of study in political economy and consider their relations to the crisis theory.

First of all, Uno criticised Marx's credit theory and reorganised it logically in accordance with the endogenous development from the activity of industrial capital. In Part 5, *Capital* Vol.III, Marx assumed two kinds of capitalists to explain the system of credit transactions: one is a "money capitalist" and the other a "functioning capitalist". While the former lends a certain amount of money to others and obtains interest exclusively, the latter borrows money from the former to invest in some industrial projects, the profit from which the interest is paid. Uno was opposed to this dichotomised understanding of the credit system, arguing that neither of the two categories of capitalist could be sufficiently conceptualised. That is, he insisted that Marx's example of lending £100 of money "does not give a clue as to why the 'money capitalist' must lend the £100 to the 'functioning capitalist' instead of using it as capital himself. ...In the pure theory of capitalism the concept of a 'functioning capitalist' who does not possess a capital of his own is surely unreasonable, even if the concept is proposed to pair off with that of a 'money capitalist'" (Uno[1977]pp.120,121). Instead, Uno's credit theory is established on the basis of idle money capitals generated in the course of the circuit of industrial capital. As industrial capital continues its production and circulation, it is necessary to lay some part of capital in money form as cash reserves for continuous operations of fixed means of production. Since the sale of commodities and the following cash inflow are utterly uncertain, individual capitalists cannot accurately forecast the proper amount of reserves to have ready in cash. Consequently, some industrial capitalists have too much reserves for the time being while others run out of cash temporarily. The idle money of the former, in Uno's argument, is fundamental to the credit system developed under the capitalist mode of production[2]. This configuration of the credit system, which is organically related to the activity of industrial capital, enabled Uno to discuss the combined dynamics of industrial accumulation and credit trading. It is

[2] The difference between these two methods in credit theory is explained more in detail in Itoh[1988]chs.4.3, 8.2 and Itoh and Lapavitsas[1999]ch.3.

important, therefore, to realise that Uno regarded the rise in wages just as the fundamental cause of crisis and further conceived the increase in the interest rate as the moment of the outbreak of crisis. Both of these two factors are required for the full–fledged crisis theory. Uno's theoretical uniqueness lies in this synthetic and comprehensive approach, covering both industrial investment and credit relationship.

Secondly, Uno's crisis theory was designed to support his analysis on the historical transformation of capitalism. Although how Marx thought about the history of capitalism should be open to discussion, most part of *Capital* Vol.I is devoted to the study on 19th century Britain and is not so clear about how capitalism has experienced long–term changes as a certain social system. The preface to the first edition states, “[w]hat I have to examine in this work is the capitalist mode of production, and the relations of production and forms of intercourse that correspond to it. Until now, their *locus classicus* has been England. ...The country that is more developed industrially only shows, to the less developed, the image of its own future” (Marx[1992]pp.90,91). This text indicates the converging tendency of capitalism toward the image of 19th century England and does not include the attention to historical metamorphosis that leads to the diversity in capitalism. It corresponds with the conclusion of “the general law of capitalist accumulation”, which is a straight line toward the end of capitalism when “[t]he knell of capitalist private property sounds” (Marx[1992]p.929). The main story in *Capital* Vol.I is concluded with the crisis that ends capitalism itself and the crisis theory concentrating on a purely economic event is buried within this context. In contrast, confronted with the development of capitalism in the 20th century, Uno realised the necessity to construct a method for analysing historically diversified stages of capitalism, with the theory of crisis established separately from the discussion on the crisis of capitalism itself.

So we should notice that what Uno tried to prove was not only the labour–power shortage as a result of capital accumulation, but also the periodicity of crisis in spite of the difficulty in proving it logically. This was because he considered decennial crises in 19th century Britain as the foundation for theoretical abstraction. The regularity of crisis phenomena at that time, he insisted, could be supposed to show their similarity to the pure theoretical image of crisis. Once the crisis theory is thus constructed, it becomes the standard model to analyse the historical development of capitalism. While crises preceding the model cases are considered to be a taint of immaturity of capitalist production, those in the later period indicate the deviations from the standard capitalism. That is, the 18th century Europe had not yet seen capitalism complete its subsumption of social reproduction so that the crisis revealed itself as a speculative bubble that was triggered by and subject to accidental incidents, not accompanying economic destruction in the production sphere. The examples are Tulip Mania in 1637 in the Netherlands, the Mississippi Company Bubble in 1720 in France and the South Sea Bubble also in 1720 in Britain. On the other hand, crisis phenomena had tended to diminish in intensity since the end of the 19th century, morphing into moderate but chronic depressions instead. This is considered to characterise the monopolistic state of capitalism represented by the emergence of finance capital, which prevented fierce restructuring after the boom had gone[3]. We can observe the Long Recession from 1873 to 1896 in Britain, and the crisis in 1907 that originated in the U.S., one of the countries which had been vigorously catching up with the U.K. Uno's crisis theory is thus incorporated with the investigation of the historical stages capitalism had experienced up to the outbreak of the First World War, which is called the stages theory in the Uno school. The three stages briefly mentioned above are named as follows: the first is the stage of mercantilism, the middle and standard the stage of liberalism, and the last the stage of imperialism. This historical scenario describing the development of capitalism cannot be neglected when we are to observe the importance of the crisis theory in Uno's framework[4].

It is therefore not enough to follow the discussion in the Uno school on the process toward labour–power shortage. Rather, development of crisis theory after Uno can be apprehended more correctly when we pay attention to other features in Uno's crisis theory, viz., the synoptic approach in theory and the connection between theory and history. Though we are going to introduce the debate on the process of accumulation at first, it will be mainly about the relation to market or price system, not about the dynamics of the industrial reserve army as such, on which Marx focused in Ch.25, *Capital* Vol.I[5]. And also, the discussion on the credit system is

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[3] Although the concept of "finance capital" was taken from Hilferding[1910], the work itself was generally subject to hostile criticism from Uno. Broadly speaking, Hilferding tried to introduce the concept of "finance capital" as a straightforward theoretical extension of Marx's credit theory. On the contrary, Uno considered it impossible to explain the development of "finance capital" without referring to the historical specificity of the stage of imperialism, which he thought should be distinguished from the period *Capital* stood on and blamed Hilferding for his unawareness of the qualitative change in the end of the 19th century.

[4] The idea of Uno's stages theory can be grasped in yet another work named *Theory of Economic Policy* (Uno[1971]), where he discusses the historical transitions of economic policies accordingly as the underlying economic situations change, dividing the history of capitalism into the three stages as mentioned in the text.

[5] This does not mean that there is no theoretical progress on the latter aspect of accumulation theory in the Uno school. See Hoshino[1995] on this topic. It should also be born in mind that the methodological reconstruction of the theory of the business cycle attempted in Obata[2009][2014],

indispensable in grasping the general picture of the crisis theory in the Uno school. Meanwhile, history after the First World War has urged the Uno school to deal with further problems. The latter part of this article will discuss relatively new points of argument, i.e., stagnation and the reorganisation of the stages theory concerning crisis.

1. Process of Accumulation

What is most difficult for every profit squeeze theory is to prove the causal relation between the rise in wages and the reduction in profit rates. Increasing wage rates will not damage profit if selling prices should rise at the moment. Uno himself was confronted with such a criticism but virtually rejected the importance of the study on price fluctuation, labeling it as illusionary. It is necessary, however, to explain why the changes in prices should be regarded as just an illusion. In other words, we must solve the problem of direct comparison between wages and prices in order to conclude profit squeeze as such. Moreover, an illusion does deserve theoretical investigation in itself.

Though price fluctuation might be a phenomenal issue caused by more essential factors, the market disturbance contributes to crisis formation and the outbreak of crisis, both of which require theoretical conceptualisation. If the wage rise is to be the fundamental cause of crisis, these questions on market dynamics observed within the process of accumulation must be discussed further.

Though there had been numerous studies by the Uno school on the issue of the relation between wages and prices, the recent discussions adopt a somewhat macroeconomic approach to give a general overview of the profit–squeeze type of crisis. Kurita[1992] sees the effect of growth in demand as wages increase while profit is reduced at the same time. The rise in wages has, according to Kurita, both positive and negative effects on the rate of profit temporarily. But eventually, it cuts the accumulation fund and hampers economic growth, which reveals the overproduction of commodities and finally decreases the general rate of profit. The fundamental cause of crisis, which corresponds to the overaccumulation of capital, thus accompanies overproduction. The point of Kurita's framework can be found in his emphasis on the positive effect on social demand of the rise in wages which does not immediately reduce profit, which is also admitted in Hoshino[2007]. Hoshino criticises the unclear definition of wages in Uno's crisis theory and explicitly distinguishes the nominal and the real. Additionally, he introduces the concept of “real wage cost” in order to avoid the difficulty in grasping the changes in real wages, which the

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which will be mentioned later, is based on a deep analysis into the peculiarity of the labour market that is derived from the existence of the industrial reserve army in particular.

comparison between nominal wages and prices entails. “Real wage cost” is defined as ω / α_2: ω is the rate of real wage and α_2 is the productivity in the department producing consumption goods, or department 2. Let N be all employees and N_2 be the employees in department 2, and if the supply of and demand for consumption goods equilibrate, there holds

$$\alpha_2 N_2 = \omega N,$$

therefore

$$\frac{\omega}{\alpha_2} = \frac{N_2}{N}. \tag{1}$$

So the fluctuation in “real wage cost”, left in equation (1), can be observed in the change in the proportion of the number of workers in department 2 to all workers. What occurs as the shortage of labour–power, Hoshino insists, is the rise in nominal wage, not that in real wage, and this leads to an increase in demand for consumption goods at first. Responding to this, department 2 expands and N_2 / N rises as long as productivity remains the same, which means the increase in “real wage cost” cuts into the rate of profit.

Market dynamics during the process of accumulation has the other issues than only their relation to the rate of wages: market disturbances such as price fluctuations must be investigated in themselves. Those formulations described above can be connected to the dynamic theory of prices, embracing the situations called “uneven development” in a broad sense into Uno's crisis theory. The issues on market dynamics, however, cannot be reduced to the theory of prices. Even if prices have a general tendency to move upward or downward, each commodity price fluctuates separately amid varying activities of individual capitals. Those diversified movements of price and of individual capitals are mutually affected and the interaction between them becomes crucial particularly when the fluctuations gain momentum, forming an imbalance among industries with speculations at the end of the boom. For example, Yamaguchi[1985] argues that the exhaustion of the industrial reserve army itself paralyses capital allocation among industries because, without the unemployed workforce, production can only be expanded through headhunting workers from other capitalists, consequently destabilising the market especially in the final phase of the boom. The analysis in Itoh[1988] is well–arranged on this topic. Itoh maintains, “[t]he social functions of the motion of capital in the expanding process of reproduction must, however, become much altered, reflecting the difficulty due to over–accumulated capital”, and points out three factors intensifying price fluctuations in the last phase of prosperity: “[a]s the pace of expansion of reproduction slows down with a fall in the profit rate, the process of adjustment of the anarchical imbalance between various spheres of production is retarded”; “[t]he cost–prices would be affected by a rise in wages in different proportions according to the different compositions of capital in various spheres of production ...Thus, there must appear certain commodities whose prices rise tendentially as their wage costs increase more than average per unit of capital"; "with a rise in wages, the demand for some means of consumption or their raw materials would suddenly increase, whereas the supply of these cannot be so quickly expanded in the short run, as in the case of agricultural products"(Itoh[1988]pp.308–309).

While these traditional arguments of Yamaguchi's and of Itoh's explain turbulent market circumstances originating solely from the specific dysfunction of the labour market, thus enlarging Uno's framework of the crisis theory to contain the issues of the market, I have recently challenged this single causal approach itself in Ehara[2013][2014], putting stress on the inner systemic disorder which the market inexorably involves under capitalism as an equally important factor along with the impact of the shortage of labour–power. There I indicate that capital accumulation with fixed capital investment must entail the stratification of conditions of production coupled with increasing employment and emphasise the former process as the other underlying cause of market disruption. Each individual industrial capital needs to pick out the most profitable condition of production among the coexisting various producing conditions when investing in a certain industry, but this task of selection becomes increasingly difficult as the stratification of conditions deepens and eventually upsets the balance of capital allocation through industrial investments, bringing about the inevitable turbulence in the capitalist market. Speculative commercial capitals immediately follow the turmoil originally springing from the abode of production, precipitating evil stockpiling across diversified branches and ensuing catastrophe.

2. Dynamics of the Credit System

As we noted above, the crisis theory in the Uno school cannot dispense with the dynamics of the credit system and is grounded on the reorganisation of the theory of credit indicated in *Capital* Vol.III. Since the credit relationship is based on the idle money capital kept by individual industrial capitalists in Uno's view, the profit squeeze caused by the rise in wages inevitably affects credit formation. Increasing production costs must disturb the circuits of industrial capital and make capitalists divert the cash reserves to fluid capital for continuing production. Assuming that the maximum scale of bank lending is loosely but basically limited to the amount of the surplus monetary fund generated from smooth and sound reproduction, this reduction in idle money capital undermines banking and forces banks to tighten finance. To put it more simply, the decreasing supply of monetary funds from industrial capitals at the end of the boom must raise the rate of interest and stifle credit trading, finally bringing about the outbreak of crisis. Although Uno's original text is more complicated and abundant in suggestions for further analysis into credit transactions in the business cycle, its basic methodology can be summarised as the cash based approach briefly described above.

This way of understanding the credit system is not completely wrong, but is oversimplified. Banks are not just intermediating cash between capitals, but are creating a purchasing power by way of giving credit. It is by no means an easy task to discuss the supply and demand relationship concerning the monetary fund market because of the relative flexibility in bank lending. The cash based approach does not pay sufficient attention to this role of credit creation that is essential to the banking industry. Uno's theory of credit had to be drastically reconstructed so that it could examine the actual mechanism of the banking system in capitalism. Yamaguchi[1984][1985] are the most representative and leading achievements in this field. What Yamaguchi emphasises in these works is the regular reflux of cash by repayment as a foundation for credit trading. It is true that a creditor who gives commercial credit must hold an adequate amount of reserves in order that he or she can do without immediate cash inflow, but the quantity of credit itself is not restricted to creditor's cash reserves. How much credit a creditor can give depends on how much a debtor can repay. This principle holds good for banking credit. Banks can issue their notes or create deposits for debtors as long as the borrowers are expected to sell some sort of assets within a certain period of time in the future and will be able to meet their liabilities. Credit money, which takes the form of banknotes or deposit currency etc., is created in these transactions and the credit creation in banking is grounded on the reflux of money from debtors to creditors, not on the cash reserves banks pile up, regardless of whether or not the credit money is convertible into commodity money such as gold coins. Yamaguchi's theory of credit can be understood as a sophisticated version of Uno's theory of credit in that it corrects the imperfection of the cash based approach and adopts a credit creating approach instead, clarifying the fundamental relationship underneath the assets and liabilities accumulated in the banking system.

While the credit creating approach shed light on the issue of credit money, making a breakthrough in the Marxian theory of money and credit which tended to be concerned exclusively on gold coins, it gave rise to another problem: if banks are able to extend credit and to provide the means of circulation to industrial circuit of capital insofar as the reflux of money is certain, how does this elasticity in credit creation reach its limit and put an end to the prosperity? We cannot rely on the simple supply–and–demand relation any longer because the "supply" of credit can be increased, as it were, even if the cash reserves decline as wages are increased. It is necessary to investigate the complexity of the dynamics of the credit system in itself. Yamaguchi himself challenged this conundrum, focusing on the uneven development in social reproduction caused by the shortage of the industrial reserve army as essential momentum (Yamaguchi[1983][1984][1985]). The unevenness of the expansion of production accompanies market disruption as we have observed in the previous section, and it leads to partial delay in repayment among various debtors. Banks respond to this situation by raising interest rates selectively at first. But these sporadic rises in the rates of interest do not prevent debtors from excessive borrowing because they need purchasing power in order to keep production ongoing and maintain the piled stock of commodities. This means the simple comparison between the interest rate and profit rate makes little sense in explaining the sudden contraction of social production. Instead, what Yamaguchi underlines is the effect of cutting credit itself by which banks react to further deterioration in the prospect of the reflux of money in credit trading, which forces industrial capitals to cease production and at the same time undermines bank lending, inevitably ending up with credit collapse. In Obata[2009] and [2014], it is asserted that the formulation of the rate of profit in banking industry is indispensable to analyse the dynamics of the credit system. The rate of profit of banking capital, r_b, is formulated as follows when the liabilities of banks with interest are omitted:

$$r_b = \frac{L \times i - (z + d)}{K}$$

Banks obtain the interest from assets, the quantity of which is denoted by L, with spending z amount of costs to conduct credit research or debt collection. i is the interest rate for banks' assets, so $L \times i$ shows the gross profit of banking. When the assets become nonperforming, they also have to be subtracted from the gross profit, indicated as d. And banks invest K amount of equity capital to operate all of these businesses.

As long as the general rate of profit of industrial capitals is stable, r_b is balanced with it and gains stability as a result. Once the industrial rate of profit gets fluctuated at the end of the boom, however, this regulation is violated. Obata[2009] describes the disturbance in credit system in two separate ways. On the one hand, banks can expand their balance sheets by giving credit to speculation. This results in rising r_b through increasing L without a rise in the interest rate. Credit collapses when the speculative bubble bursts and banks go bankrupt, with a considerable part of the assets turning out to be nonperforming. The other possibility is that banks try to secure the level of their profit rates by restricting credit. Faced with uncertain economic circumstances, banks may raise K and spend more z for credit research. In order to maintain r_b under these conditions, i must soar up, damaging industrial and commercial capitals along with credit restriction itself, after which follows an industrial or commercial crisis. Obata thus classifies how the credit system works in accordance with the structure of the rate of profit of banking capital.

These works are inclined to regard the withdrawal of monetary reserves in banks, typically described as a drain of gold in traditional Marxian writings, as a result of credit concerns based on the disruption in social reproduction. Meanwhile, the opposite argument also has influence in the crisis theory in the Uno school, which attaches relative importance to a drain of reserves as a trigger for credit uneasiness, from both theoretical and empirical points of view. Those who support this view certainly agree with the credit creating approach in that the reflux of money is fundamental to the circulation of credit money. But they argue that it is necessary to deal with how the change in the amount of reserves destabilies the banking industry in more detail so that the crisis theory can trace actual phenomena. For example, Hoshino[2007] insists that the rise in wages would force capitalists to withdraw deposits from banks to pay to their employees, thus internalizing this trigger into the original apparatus of Uno crisis theory. Because capitalists must pay wages in cash, this arena of cash transactions becomes a weak spot in the credit system according to Hoshino. Yoshimura[1999] and [2005] discuss the mechanism of foreign exchange working together with the internal financing and aim at constructing a sort of open model to elucidate the outbreak of crisis. Actually, the importance of the reserve money in the banking system was first stressed in Makoto Itoh's earlier work (Itoh[1973]). Although Itoh's analysis at that time was mainly grounded on historical experiences in 19th century Britain, recent literature is more theoretically arranged.

Before leaving this section on the dynamics of the credit system, we must take a look at another type of discussion about the role of finance in crisis theory. Traditionally, Uno's crisis theory has underlined the causal combination of the two factors of crisis, one in production and the other in the credit system. Most of the studies we have seen above are generally in line with this causality. This theoretical frame of investigation is, however, liable to undervalue relatively independent financial development which does not keep pace with industrial development because it conceives the state of finance exclusively as the upshot of reproduction. It naturally falls short of the purpose of analysing the dynamics in modern capitalism from the 1980s onward, which have seen neoliberalism sweeping and financial bubbles recurring all over the world. Bearing this contemporary situation in mind, some theorists in the Uno school advocate embracing what post–Keynesians like Hyman Minsky call “financial instability” in Uno's framework. Yokokawa[1989] is a pioneer of this radical challenge. Yokokawa tries to integrate Minsky's “financial instability hypothesis” with Uno's crisis theory by introducing the role and effect of independent banking activity, thereby evolving Uno's traditional style of the crisis theory into “Marxian monetary theory of crisis”. The uniqueness of his argument lies in his emphasis on “the plethora of money capital” as a cause of credit easing by banks at the end of the prosperity period. As the rise in wages squeezes profit, industrial expansion is dampened and “the plethora of money capital” emerges. This surplus fund which is not invested in production urges banks to give credit to riskier trading mainly undertaken by commercial capitals, forming monetary boom and burst in Yokokawa's view. While Yokokawa[1989] aims at integration in its own way, Itoh and Lapavitsas[1999] seems to be a rather typological argument in handling "financial instability" within its theoretical configuration. Itoh and Lapavitsas define financial turmoil arising separately from the state of reproduction as "monetary crisis of type 2" whilst "type 1" is considered to be the traditional sort of credit crisis discussed within Uno's framework, which comes after industrial deadlock. According to them, this distinction in monetary crisis can be found in the text of Ch.3, *Capital* Vol.I. Besides, they maintain that Minsky's notion of financial instability "has much in common with the Marxist theory of crisis, particularly because it attempts to identify inherent weaknesses of the capitalist economy" (Itoh and Lapavitsas[1999]p.153), thus associating "monetary crisis of type 2" with Minsky's financial instability hypothesis. On the other hand, they refuse simple and arbitrary application of these two types of crisis to empirical study and state "Minsky's financial instability hypothesis appears most relevant for the period of accumulation difficulties that commenced in the 1970s. The specific changes in the historical conditions of capitalist accumulation in the post–Second–World–War period must be examined first in order fully to appreciate the significance of the relationship between long–term expectations and capitalist financial instability" (ibid.), emphasising the priority of historical analysis of the underlying capitalist accumulation process.

3. Stagnation

We have examined so far the theoretical efforts made exclusively on the factors of crisis as such. Meanwhile, some other points which are not directly related to the occurrence of crisis itself are getting attention and are being discussed in the theory of the business cycle, as various spectacles of the dynamics of capitalism other than crisis phenomena begin to unfold. In the following two subsections, we are going to overview those relatively new points of argument.

As obviously shown in the table of contents of Uno[1953], Uno's crisis theory covers not only the crisis in itself, but the business cycle as a whole comprised of three phases, i.e. prosperity, crisis and stagnation[6]. In spite of its title, *Theory of Crisis*, it is about a theory of the business cycle

[6] Uno[1953] has five chapters titled as follows:

Ch.1 Prosperity

Ch.2 Crisis

Ch.3 Stagnation

Ch.4 Period of Business Cycle

Ch.5 The Necessity of Crisis in Capitalism at the same time; thus clarifying crisis within the business cycle should be investigated independently of the crisis of capitalism itself. It is true, however, that the argument on stagnation in Uno[1953] is very short and uncultivated in comparison with that on prosperity or on crisis and that the latter has attracted most of the theoretical interest in the Uno school. This trend has changed to some extent on account of the "Lost Decade" or "Lost Two Decades" from the 1990s in Japan, with a new trend towards analysing the state of stagnation, (which should be distinguished from a steep backlash observed as crisis), growing among Japanese Marxian economists. Their works are to investigate why the economy has continued to stagnate for such a long period. Uno[1953] takes an ambivalent attitude toward this issue on stagnation: a persisting general overproduction of commodities is emphasised while it is asserted that the relation between the capitalist class and the working class remains to be reformed, but how both of these conditions are interlinked is highly opaque. Here we are going to classify relatively recent literature into two types according to which of these two factors Uno pointed out is stressed.

Itoh[1973] is a pioneer regarding the former point, i.e. the overproduction of commodities as the fundamental reason for the systemic persistence of stagnation within the theory of the business cycle. It is maintained that even if the rate of wages falls down, existing fixed capitals hamper the reallocation of capital across industrial branches, hence there is a persistent disproportionality among branches of production. This situation entails a remaining surplus of production capacities in various industries introduced during the past boom. As summarised in Itoh[1980], the Uno school has strongly rejected disproportionality among industries as a cause of crisis, but it is adopted as a cause of stagnation in Itoh's crisis theory, thus embracing disproportionality theory within the profit squeeze type of crisis theory in its own way. This style of argument is further developed recently in Tanaka[1995] and Miyazawa[2003][2011]. There the inflexibility of industrial capital rooted in fixed capitals gets more significant and is supposed to delay recovery by impeding both the employment of newly invented technologies and the spread of investment demands, thereby prolonging stagnation with imbalance among industries.

In these works mentioned above, it can be briefly stated that the dynamics of the business cycle are explained in a double principle: the economy can prosper as long as there is plenty of industrial reserve army and stagnation continues owing to persistent disproportion with fixed capitals, which is the aftermath of crisis. On the other hand, those who focus on the class–relation between the capitalists and the workers adopt a single causal approach to the theoretical formulation of the business cycle. For example, Nakamura[2005] stresses the peculiarity of labour–power as a commodity. It is true that a worker, a possessor of labour–power, pursues his or her economic interest but a worker is not a complete *homo economicus* in that he or she lives in his or her own household, the system of which is operated very differently from the market mechanism, and maintains the labour–power there as a member of a family and/or of some other community. Market forces cannot solely decide the rate of wages because of this background of labour–power and there is a bottom line that the capitalists cannot breach when they try to reduce the wage rate. The lower limit of the rate of wages is, Nakamura[2005] presumes, the primary cause of continuous stagnation. Obata[2009][2014] also emphasise the peculiarity of the labour market, the structure of which is characterised by the presence of the industrial reserve army as typically depicted as in Figure.1 in Sweezy[1949]p.91. Since the industrial reserve army is not necessarily an excess of supply of labour–power but can involve workers who are just in training for some occupation or are engaged in other kinds of work that are not the wage labour under the capitalists (household workers, civil servants, NPO workers etc.), those dismissed from capitalist wage labour do not always need to sell their labour–power at a sacrifice. Hence the increase in unemployment is not accompanied by an immediate decline in the rate of wages. Massive layoffs during a crisis does reduce incomes of the working class, but it is due to the decrease in total working hours under the capitalists. Obata argues that the increased level of the wage rate that caused the past crisis can only be diminished through the drastic reorganisation of substantial working systems, which lessens the power of the workers against the capitalists and makes the workers agree to a wage cut. The reorganisation takes time because the capitalists must not only introduce new technologies but deskill some part of working processes and reshuffle employees, hence the persistency of stagnation.

In fact, what is more important in Obata's works is the methodological critique on the traditional formulation of the theory of the business cycle in the Uno school. The structure of the theory of the business cycle in Uno[1953], which puts three phases of prosperity, crisis and stagnation in sequential order, has been regarded as a self–evident premise. Obata rejects it as not being an effective theoretical framework of analysis, criticising it for lapsing into a mere description of phonomena, particularly those observed in 19th century England. Instead, it is insisted that prosperity and stagnation should be conceptualised as two distinctive phases comprising the basic states of capitalist economy in the business cycle and that crisis should be distinguished from these two as a switching event from prosperity to stagnation. This is why the single causal approach is required in the theory of the business cycle in Obata's argument. If the persistence of stagnation is explained as a remaining effect of crisis such as disproportion among industries, the stagnation can never be as equally important as the state of prosperity, although the configuration of this type of explanation is consistent with the sequential order of the business cycle. In order to conceptualise the phase of stagnation as logically equivalent to that of prosperity, both phases must be grounded on the same theoretical arena, such as the diagnosis of the labour market carried out in Obata[2009][2014].

4. Reorganisation of the Stages Theory

Stagnation, which Japan experienced for a lengthy period of time during the 1990s and 2000s, is by no means the only actual phenomenon that calls for theoretical investigation after Uno's literature. Indeed, there have occurred numerous kinds of events concerning the business cycle under capitalism until the present day that are eligible for analytical attention. However, Uno's original study is very limited, just covering the history of capitalism up to the outbreak of the First World War. This limitation, in a sense, has provided Uno's political economy with the persuasive framework of the three historical stages of capitalism. Uno's stages theory virtually ends in 1914 and the following rest of the period is labeled as a "transitional period toward socialism". It was natural, therefore, that Uno's followers tried to reorganise the stages theory, particularly the last stage of imperialism, as it became increasingly difficult to stay satisfied with this opaque and somewhat optimistic definition of the period after the First World War. Although reconsidering the stage of imperialism has diverse aspects to be discussed including such topics as the establishment of the welfare state, the mechanism of the international monetary system, the changes in industrial structure etc., here we are going to focus on those immediately related to the theory of crisis. Since the crisis theory is one of the basic theoretical standards for historical analysis in the Uno school, the phenomenon of the business cycle should deserve close attention in the stages theory.

It goes without saying that "the Great Depression" beginning from 1929 was the most outstanding disaster that determined the course of capitalism after the Second World War. While the Soviet Union was reported to be enjoying a lively economy, the capitalist world was confronted with severe recession and huge unemployment and allowed Fascism to thrive, finally plunging into the devastating war. It was of utmost importance for capitalist nations after 1945 to establish a stable political and economic system worldwide that could prevent economic catastrophe and hostile clashes between nations. The Great Depression should therefore be a critical event for the development of the stages theory and if the theory of crisis is to be helpful in investigating historical stages of capitalism, it should at least give us a hint about scrutinising the cause and effect of the Great Depression. In fact, the introduction of Uno[1953] begins with a brief overview of the Great Depression and admits its serious extensiveness as an economic crisis happening under capitalist economy, but he rejects further analysis into this specific event, insisting that investigation into individual crisis phenomena does not lead to building a general theory of crisis and that it is necessary to find out the typical crisis phenomenon that can offer the foundation on which the principle of crisis would be constructed. As mentioned above, decennial crises in 19th century England were picked out as a typical image. Then the next task for Uno ought to have been an examination on the Great Depression on the basis of the general theory of crisis, but he did not proceed to this work. This discontinuation may be because of the limitation of his framework of stages theory which practically excludes the period after the First World War.

So it has been an onerous mission especially for the Uno school to open up the stages theory to the intermediate period between the two World Wars and to subsume the Great Depression within its overall configuration of political economy. Takumi[1990] classifies this fatal problem in Uno's stages theory into three points: firstly, if the stage of imperialism is characterised by declining intensity of crisis and looming chronic depression, it would be impossible to discuss the Great Depression that involved a sharp economic downturn; secondly, the traditional description of the stage of imperialism overlooks the periodicity of crises that had occurred during the period; thirdly, the traditional argument overestimates the influence of monopoly before the First World War and paid little attention to the strengthened monopoly capitalism after the war, consequently ignoring the relationship between the rigidity in price fluctuations and the intensity of crisis which is crucial to analysis into the Great Depression. Takumi[1994] is the elaboration which attempted to overcome these difficulties by carrying out a tremendous amount of empirical research on the Great Depression, concluding the core of the most catastrophic crisis in the 20th century could be elucidated from the viewpoint of Uno's crisis theory, viz., the combination of the rise in wages and financial disruption. According to Takumi, the fundamental cause of the intensive decline in investment in the earliest stage of the Great Depression must be the increase in wages that damaged the profitability of U.S. industries, with the monopolistic price mechanism and the volatile international monetary system escalating the turmoil, the intensity of which cannot be compared with that of the cyclical crises in the 19th century. Briefly speaking, Takumi virtually applies Uno's crisis theory to the Great Depression to detect its fundamental cause and historical features, consequently contributing to embracing the intermediate period between the two wars within the research scope of the stage of imperialism[7].

[7] Insofar as the issue of identifying the ultimate factor of the Great Depression is concerned, sticking to the profit squeeze might be too obstinate. Shibata[1996] is one of the convincing empirical criticisms of Takumi's works in this respect, asserting that the rise in wages was conspicuous only among non–oligopolistic industries but cannot clearly be observed among oligopolistic industries, which suffered the most severe contraction of production in the crisis. Instead, Shibata places more emphasis on the downward rigidity of prices of commodities produced by oligopoly capitals as the fundamental problem at that time, together with the instability in the U.S. financial system and the international monetary system. Nakamura[2007] appreciates Shibata[1996]

After the Second World War, the capitalist world entered its “golden age”. Japan experienced around 10% annual real GDP growth every year for almost 20 years and revived from the ruins of war. Ouchi[1970] is arguably the most influential study in Japan on this prosperous period of capitalism, which interprets the era on the basis of Uno's crisis theory and the stages theory. In his work, the period is characterised as “state monopoly capitalism”, the phrase of which is well–known for Vladimir Lenin's definition on the post–first–world–war capitalism that was supposed to be in transition toward socialism, but Ouchi criticises the ambiguity in Lenin's work and the following studies of others such as Y. Pevsner, a Russian Marxist who engaged in investigating post–war Japanese capitalism, and K. Zieschang, an East German Marxist who had a deep impact in Japan on the study of this very topic. As a result, Ouchi's definition of “state monopoly capitalism” is radically different from that in the literature outside of Japan. His criticism can be summarised in two points. First, “state monopoly capitalism” should be distinguished from a simple wartime economy, since wartime regulation waned shortly after the war had ended. Ouchi insists that World War I should not be taken as a beginning of “state monopoly capitalism” and that it starts with the Great Depression that urged capitalist nations to rebuild the economic system entirely, forming the semi–stage of capitalism as a part of the stage of imperialism. Second, state capital as the developed form of monopoly capital cannot feature in “state monopoly capitalism”, according to Ouchi, because state intervention in the overall economy is in itself common in the whole stage of imperialism. Ouchi tries to specify what state policy can be regarded as characteristic of this semi–stage and concentrates on the effect of financial policy enabled under the domestic currency system flexibly managed without the restriction of gold reserves. It is maintained that inflationary financial policy raises the level of prices and thereby mitigates the pressure of the rise in wages and in interest, hence offsetting the causes of crisis. This mechanism prevents the outbreak of harsh crisis and makes long–term brisk growth possible, Ouchi[1970] concludes. The stage of imperialism was thus prolonged to post–war capitalism with some alteration and the crisis theory played a crucial role in the logic of Ouchi's achievement.

The 1970s inflationary crisis, however, undermined the system in the “golden age” of

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and attempts to abstract from it what Nakamura calls “the crisis theory of the Great Depression model”, which is typologically distinguished from “the crisis theory of typical model” that corresponds to the original type of Uno's crisis theory, consequently proceeding to what can be put as a multi–causal development in crisis theory. This mutual influence between theory and empirical studies can be regarded as a notable example in which the reorganisation of the stages theory eventually aroused the consciousness of reformulating the crisis theory.

capitalism, or even Ouchi's frame of reference for the system, prompting the methodological discussion on the relationship between the crisis theory and the stages theory. Itoh[1990] insists that the rise in wages and in the prices of raw materials, especially oil prices, must be regarded as the fundamental cause of the inflationary crisis in the 1970s, broadly supporting the argument in Armstrong, Glyn and Harrison[1984] and other works that observe profit squeeze underneath the turmoil appearing as stagflation. Itoh furthermore maintains that this verifies the practical effectiveness of Uno's crisis theory. On the other hand, Ouchi's unique system of “state monopoly capitalism”, which assures the function of financial policy in alleviating the profit squeeze, cannot appropriately explain why this mechanism ceased to work in the 1970s. In Itoh[1981], which is the Japanese work preceding Itoh[1990], it is argued that this problem in Ouchi[1970] derives from a methodological fallacy. That is, according to Itoh[1981], direct application of Uno's crisis theory to the actual situation of capitalist economy like Ouchi's theory of “state monopoly capital” is too naive a way to conduct empirical analysis. The principle of crisis cannot directly explain the general theoretical interrelation between the actual capitalist dynamics and economic policy, Itoh maintains, and must be intermediated by historical studies, which forms the stages theory. Instead of the role of inflationary policy, he attributes the stable growth in the “golden age” of capitalism to military spending and welfare policy that were required to compete against socialism. This way of boosting economic expansion necessarily reaches its limit with the overaccumulation of capital under capitalist economy. Itoh thus first analyses the historical reality of world capitalism at that time and uses the theory of crisis only under the specific situation clarified through the empirical investigation. His methodology restricts the application of the crisis theory, hence allowing the stages theory to develop further in itself to deal with much diversified topics on the historical study of capitalism.

In spite of this limitation on the role of the crisis theory, the historical analyses on capitalism up to the 1970s by the Uno school generally approve the positive effectiveness of the crisis theory. Uno's crisis theory is literally regarded as the fundamental theory to the investigation of historical development and is referred to as the standard model to sort out the historical specificity, thus contributing to the extension and enrichment of the understanding of the stage of imperialism. As the stages theory proceeded to deal with the capitalism after the 1980s, however, this close connection between the crisis theory and historical studies began to fade away. After the 1980s, we have experienced recurrent financial bubbles and bursts all over the world and some theoretical attempts were made to elucidate these relatively new phenomena as we have overviewed in the earlier section. Nevertheless, the theory of crisis and its reconstruction have not been correlated with the recent development of the stages theory. Itoh[1990] and [2001] define the change in capitalism after the 1980s as “spiral reversal”, stating “[c]apitalism seems to be running the film of history backwards by ‘melting down’ the sustained trend of a century, and returning to the older stage of liberalism or even to that of mercantilism in some important ways.” (Itoh[1990]p.14) Although the definitions of the three stages of capitalism are originally related to the crisis theory, the “spiral reversal” itself is the description of empirical facts which can be grasped without the principle of theoretical crisis. Ouchi[2005] insists that capitalism after the 1990s can be characterised by decaying business cycles, conceiving the theoretical concept of crisis just as a negative image of the actual phenomena. These works do not extend the stage of imperialism any longer and to some extent share the recognition of qualitative change in the existing capitalist world. Since the change described in them is solely based on actual experiences, the stages theory is expanded with little reference to theoretical apparatus. Here we could have expected an active discussion about the reorganisation of the theory of crisis along with that of the stages theory, the purpose of which would be the systematic understanding of the modern type of financial crisis with clear logical relationship to the original Uno type of crisis and the theoretical investigation of the transformation in the modern era of capitalism. On the contrary, the independent development of the stages theory seems to have negated the importance of the theory of crisis, hence stagnating movement toward theoretical reformulation. While the stages theory was, in a sense, compelled to expand as capitalism survived throughout the 20th century, the overall framework of Uno's crisis theory was retained as it was and theoretical studies on the topic gradually lost momentum.

The recent financial crisis in 2007–8 came like a bolt out of the blue amidst the above academic situation and suddenly aroused the necessity for analysing crisis phenomena again. The studies on the modern crisis by the Uno school have diversified more than ever. Here we classify them roughly into three groups.

The first of them explains the recent crash from the viewpoint of the traditional style of Uno's crisis theory and tries to verify its effectiveness. Hoshino[2010] conducts an empirical analysis on the U.S. economy and points out the shortage of the labour force due to the increasing employment in the service sector from 2004 to 2007. This factor leads Hoshino to conclude “profit of US industries reached its peak in 2006 and began to decline since the next year because of a rising trend in unit labor cost… It is noteworthy that the declining trend of profit in US industries had began prior to the Lehman Shock in September 2008” (Hoshino[2010]abst.), thus observing the overaccumulation of capital against labour–power as the fundamental cause of crisis. Nitta[2013] pays more attention to emerging markets such as China, the rapid expansion of which were pushing up oil prices before the crisis. The rising gasoline prices dampened the demand for cars and damaged the rate of profit in car industries in the U.S., causing the overall economic downturn. This causality does not directly correspond with the profit squeeze type of crisis, but according to Nitta, it is the "warped expression of the overaccumulation of capital" because gasoline is indispensable for driving a car and the rise in gasoline prices can be regarded as the rise in cost of the motorcar parts in a broad sense. While these two articles focus on the adaptivity of the framework of the overaccumulation of capital, Yamaguchi[2014] discusses the composition of the stages theory, relabeling the stage of imperialism with "the stage of finance capital" which continues until today. He divides this stage into four substages, 1. before WWI, 2. between WWI and WWII, 3. the period of the Cold War, 4. after the Cold War, and analyses the historical specificities in the fourth substage, taking the theoretical principle of the crisis as a standard model.

The feature in the second group of the contemporary crisis studies by the Uno school is the modification of the concept of the crisis theory. Itoh[2009] and [2013] are the leading works as to this approach, proposing the idea of "the financialization of labor–power" as the fundamental problem underlying "monetary crisis of type 2" mentioned above. It is supposed to be the deepened form of the contradiction of capitalism that has traditionally been defined as the buying and selling of labour–power in the Uno school, virtually indicating the expropriation from the working class through mortgage loans etc. "[M]ajor banks and other financial institutions began to expand consumer credit, and especially housing loans, to working people... In this sense, the commodity of labor–power has become increasingly financialized. This tendency can be called financialization of labor–power."(Itoh[2013]p.12) This modification, however, does not mean two types of crisis theory can coexist within the theoretical principle of the crisis. Itoh[2014] makes this point clearer by way of criticising Harvey[2010], which appreciates a multi–causal approach, stating "[i]t is... not satisfactory just to specify the different models of crisis by comparing the 1973–75 and the subprime world crisis. The historical sequential context of these crises must be essential for understanding why real wages became so hard to rise even in the recovery phase since 2002 along with a prolonged depressive tone in the labour market, as well as why idle capital was so much mobilized speculatively into the US housing loan market by causing a sort of rather excessive consumer demand." (Itoh[2014]abst.)

The third group of study takes the 2008 crisis as an opportunity to reform the stages theory comprehensively. Obata[2011] regards the feature in the current globalism as the rise of the newly emerging capitalism such as China and India, not as neoliberalism spreading from the U.S., and argues that globalism in that sense forms a new "plate" of capitalism arising from beneath the former "plate" of imperialism as emerging markets continued steady growth even after the financial crisis whilst the developed capitalist countries were faced with serious debt problems and stagnation. In Kawamura[2013a] and [2013b], it is maintained that "while its origin was in the United States, the global financial crisis cannot simply be attributed to the growth and collapse of financial bubbles within that nation" (Kawamura[2013b]p.26), and that the 2007–8 crisis is a systemic crash of global capitalism since the mid–1970s, which shows two interlinked characteristic aspects: first, the development of the "global city" (Sassen[2001]) where headquarters of global companies control globally scattered business operations, and second, the "new empire circuit" of capital flows which globally finances the huge current account deficits of the U.S. with the U.S. dollar functioning as the international key currency. "The seriousness of the current situation becomes clear only when it is viewed in the context of this broader structural change in modern capitalism" (Kawamura[2013b]p.47), he concludes. Yokokawa[2013] rebuilds the stages theory, separating the development of capitalism after World War I as "bureaucratic capitalism" from "market capitalism", which Uno's original stages theory covers. Overviewing his own theoretical apparatus called "institutional Marxian political economy" and the path of "bureaucratic capitalism", Yokokawa classifies crises into three types, viz. cyclical, structural and systemic crisis, and accordingly discusses the subprime loan crisis and its meaning to capitalism as a whole.

Which of the three groups of argument will be dominant still remains to be seen. Neither of the first or the second group of studies sees the necessity of reconsidering the basic theory of crisis. The first insists on adapting the traditional formulation of Uno's crisis theory to the analysis on the recent crisis so there is no need to change it. Itoh modifies the basic concept of the crisis theory, but this modified theory does not substitute for the original; it is merely available to elucidate the current situation. Itoh is very consistent in this point, limiting the application of the crisis theory to the analysis on the real circumstances as carefully scrutinising the capricious activities of capitalism. Insofar as Itoh's methodology is taken, the basic set of the crisis theory is fixed and what changes is an ad hoc logic of crisis formation within the respective stages of capitalism. On the other hand, the third view should require complete reformulation of the theory of crisis. If the recent crisis is regarded as the contradiction of the whole system of global capitalism rather than as an incident within the developed countries themselves, it should be admitted that capitalism has already entered into an unexplored stage, in which a number of developing countries emerge as new capitalist nations in themselves. In order to capture this great historical transformation as such, the Uno school must carry out radical self–criticism the same way as Uno himself had critisised Marx.

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References

(Titles in brackets are translated from Japanese.)

Armstrong, Philip, Andrew Glyn and John Harrison [1984] Capitalism since World War II, Fontana.

Ehara, Kei [2013] "(Commercial Capitals in Crisis Theory)", The Uno Newsletter, Vol.2, No.12.

Ehara, Kei [2014] "(Dichotomy in Crisis)", Political Economy Quarterly, Vol.51, No.2.

Harvey, David [2010] The Enigma of Capital and the Crisis of Capitalism, Profile Books.

Hilferding, Rudolf [1910] Finance Capital.

Hoshino, Tomiichi [1995] "Unoist Approach to the Theory of Economic Crises", in Albrittton, R. and Sekine, T. T. eds., A Japanese Approach to Political Economy, Ch.5, St. Martin's Press.

Hoshino, Tomiichi [2007] (Theory of Business Cycle), Toyama University Press.

Hoshino, Tomiichi [2010] "(Global Economic and Financial Crisis in 2008 and Its Causes)", Political Economy Quarterly, Vol.47, No.2.

Itoh, Makoto [1973] (Credit and Crisis), University of Tokyo Press.

Itoh, Makoto [1980] Value and Crisis, Monthly Review Press.

Itoh, Makoto [1981] (The Modern Capitalism), Kodansha.

Itoh, Makoto [1988] The Basic Theory of Capitalism, Macmillan Press.

Itoh, Makoto [1990] The World Economic Crisis and Japanese Capitalism, Macmillan.

Itoh, Makoto [2001] "Spiral Reversal of Capitalist Development" in R. Albritton, M. Itoh, R. Westra and A. Zuege eds., Phases of Capitalist Development, Ch.7, Palgrave.

Itoh, Makoto [2009] (From the Subprime to the World Crisis), Seidosha.

Itoh, Makoto [2013] "From the Subprime to the Great Earthquake Crisis in Japan", in K. Yagi, N. Yokokawa, S. Hagiwara and G. Dymski eds., Crises of Global Economies and the Future of Capitalism, Ch.1, Routledge.

Itoh, Makoto [2014] "(Crisis Theories in Marx's Capital and the Current World Economy in Crisis)", Political Economy Quarterly, Vol.51, No.3.

Itoh, Makoto and Costas Lapavitsas [1999] Political Economy of Money and Finance, Macmillan.

Kawamura, Tetsuji [2013a] "(The Change in the Postwar Pax Americana and Global Financial Crisis Originated in the U.S.)", SGCIME ed., (Anatomy of Modern Economy), Ch.2, Ochanomizu–Shobo.

Kawamura, Tetsuji [2013b] "The Global Financial Crisis", in K. Yagi, N. Yokokawa, S. Hagiwara and G. Dymski eds., Crises of Global Economies and the Future of Capitalism, Ch.2, Routledge.

Lenin, Vladimir [1963] A Characterisation of Economic Romanticism, in V. I. Lenin Collected Works, Vol.2.

Marx, Karl [1992] *Capital*, Vol.I, Penguin Classics.

Miyazawa, Kazutoshi [2003] " (Technological Innovation and Continuous Stagnation)", SGCIME ed., (Reconstructing the Principles of Capitalism), Ch.11, Ochanomizu–Shobo.

Miyazawa, Kazutoshi [2011] "(Investment of Fixed Capital and Adjustment of Disequilibrium of Profit Rates)", The Hiroshima Economic Review, Vol.35, No.1.

Nakamura, Taiji [2005] (Crisis and Stagnation), Ochanomizu–Shobo.

Nakamura, Taiji [2007] "(The Crisis Theory of the Great Depression Model)", M. Obata, T. Aosai and A. Shimizu eds., (Studies on Marxian Theory), Ch.12, Ochanomizu–Shobo.

Nitta, Shigeru [2013] "(Absolute Surplus of Capital and Foreign Exchange Regulation in the 2008 Crisis)", The Journal of Sensyu University Institute of Social Science, Vol.600.

Obata, Michiaki [2009] (The Principles of Political Economy), University of Tokyo Press.

Obata, Michiaki [2011] "(Fundamental Problems in Marxian Economic Theory under the Rise of the Emerging Capitalism)", Political Economy Quarterly, Vol.48, No.1.

Obata, Michiaki [2014] (Critical Studies on the Marxian Theory of Crisis), University of Tokyo Press.

Ouchi, Hideaki [2005] (The Formation of Crisis Theory), Nihon–Hyoron–Sha.

Ouchi, Tsutomu [1970] (State Monopoly Capitalism), University of Tokyo Press.

Sassen, Saskia [2001] The Global City, 2nd ed., Princeton University Press.

Shibata, Tokutaro[1996] (The Great Depression and Modern Capitalism), Toyokeizai–Shinpo–Sha.

Sweezy, Paul [1949] The Theory of Capitalist Development, Dobson.

Takumi, Mitsuhiko [1990] "(The Great Depression and Economic Theory)", H. Yoshikawa and T. Okazaki eds., (Historical Perspective for Economic Theory), Ch.1, University of Tokyo Press.

Takumi, Mitsuhiko [1994] (The World Great Depression), Ochanomizu–Shobo.

Tanaka, Hideaki [1995] "(Fundamental Theory on Stagnation)", The Journal of Economic Studies: the University of Tokyo, Vol.37.

Uno, Kozo [1950,52] (Principles of Political Economy), Vol.I,II, Iwanami–Shoten.

Uno, Kozo [1953] (Theory of Crisis), Iwanami–Shoten.

Uno, Kozo [1971] (Theory of Economic Policy), Kobundo.

Uno, Kozo [1977] Principles of Political Economy, Harvester.

Yamaguchi, Shigekatsu [1983] (How to Read Marx's Capital), Yuhikaku.

Yamaguchi, Shigekatsu [1984] (The Theory of Financial Mechanism), University of Tokyo Press.

Yamaguchi, Shigekatsu [1985] (Lectures on Principles of Political Economy), University of Tokyo Press.

Yamaguchi, Shigekatsu [2014] "(Marxian Economist Approach to Recent Financial Crises)", Political Economy Quarterly, Vol.51, No.3.

Yokokawa, Nobuharu [1989] (Value, Employment, and Crisis), Shakai–Hyoron–Sha.

Yokokawa, Nobuharu [2013] “Cyclical Crisis, Structural Crisis, Systemic Crisis, and Future of Capitalism”, in K. Yagi, N. Yokokawa, S. Hagiwara and G. Dymski eds., Crises of Global Economies and the Future of Capitalism, Ch.7, Routledge.

Yoshimura, Nobuyuki [1999] “(Foreign Exchange and Crisis)”, M. Obata ed., (New Development on the Theory of Money and Credit), Ch.8, Shakai–Hyoron–Sha.

Yoshimura, Nobuyuki [2005] “(Reconsidering of Money–Dealing Trade)”, Political Economy Quarterly, Vol.41, No.4.