Public Money vs Debt Money Systems
– Implementing the American Monetary Act –

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Abstract

Our economies are currently facing systemic failures of financial and debt crises. To overcome these, an alternative public money system is proposed by the American Monetary Act. This paper is the third one that examines the feasibility of the public money system. First and second papers have focused on the liquidation of government debt. This paper explores monetary and financial stability under the public money system in comparison with the current debt money system, by constructing a simplified macroeconomic model. It demonstrates through simulation that monetary and financial instability is built into the current debt money system and "booms and depressions" become inescapable. On the other hand, monetary and financial stability is shown to be accomplished under the public money system.

1 System Structures

I have already presented two macroeconomic models of the American Monetary Act in [7] and [8] based on the method of accounting system dynamics developed in [6].

We have successfully completed macroeconomic analyses of debt money and public money systems. The public money system is, in a sense, to restore the proposal of the Chicago Plan or 100% Money Plan by repealing the Federal Reserve Act of 1913 when applied in the US. The Chicago Plan has been compactly proposed as having the following three features [9, 10].

- Governmental control over the issue of money
- Abolishment of credit creation with full (100%) reserve ratio

*The paper is submitted to the 9th Annual AMI Monetary Reform Conference, Sept. 19 - 22, 2013, Chicago, Illinois.

	Public Money System	**Debt Money System**
Issuer	Public Money Administration	Central Bank
Owner	Government	Private Banks and Financiers
Reserve	100% Reserve	Fractional Reserve
Money Supply	Direct Increase into Circulation as GDP grows	Monetary Base: Central Bank Deposits: Commercial Bank Loans Currency in Circulation: Public
Interest	Interest-free	Interest-bearing Debt
Economic Policies	Public Money Policy (Public Money Financing)	Monetary Policy (Central Bank) Fiscal Policy (Government)

Table 1: Public Money vs Debt Money System Structures

- Constant flow of money into circulation to sustain economic growth and welfare

The macroeconomic system which meets the above conditions is called a *public money* system, while the current system is called a *debt money* system. From system dynamics viewpoint, it's better to analyze system behaviors separately from system structures.

System Structures

Issuer and Owner

Under the current debt money system, bank notes are produced by the central bank and coins are minted by the government. These become currency in circulation. Money thus created is called base money or monetary base M_0. Under the public money system, money such as paper notes and coins are produced by the Public Money Administration (or Authority). Central banks are owned by the private banks and financiers, and government. Federal Reserve Banks are owned by member banks which are owned by private bankers and financiers. Bank of Japan is 55% owned by the Government and the remaining 45% are privately owned. Bank of England is 100% owned by the Government.

Bank Reserve

Under the debt money system, commercial banks are obliged to hold a fraction of deposits as bank reserves with the central bank, and the remaining amount are loaned out. Under the public money system, commercial banks have to reserve safely all the amount of deposits so that they are ready to be withheld by depositors.

Money Supply

Money supply is defined as the sum of currency in circulation and demand deposits for M_1. Currency consists of banks notes and coins, which are crated by central bank and government (Coins constitute only a negligible portion such as 0.5% in Japan). Together with bank reserve, they constitute the so-called

monetary base or base money M_0. Currency in circulation is the amount of currency used by the public (mainly consumers). Meanwhile, deposits are made to producers and households (mainly mortgages) by bank loans. Money supply under the public money system is under the complete control of Public Money Administration.

Interest
Under the debt money system, money is only created when someone comes to the central bank to borrow; that is, government can indirectly borrow from the central bank through open market operations at interest, which commercial banks can also borrow money from the central bank at interest such as discount rate.

Economic Policies
Under the debt money system, to challenge inflationary and deflationary situations, economic recessions, fiscal policy is exercised by the government and monetary policy is exerted by the central bank. Specifically, fiscal policy consists of taxing and spending, while monetary policy consists of changing interest rate of overnight cash transaction known as federal reserve rate in the US upon which all other interest rates are based. Under the public money system, no interest is charted by the government. Commercial banks are not allowed to charge interest against deposits. Instead, they are allowed to impose service charges. Meanwhile, banks have to pay interest for time deposits, become completive, leading more efficient banking services.

2 System Behaviors

	Public Money System	**Debt Money System**
Monetary Stability	Stable Money Supply Stable Price Level	Bubbles and Credit Crunches Inflation & Deflation
Financial Stability	No Bank-run	Business Cycles (Booms and Busts)
Government Debt	No Government Debt	Built-in Debt Accumulation $\rightarrow$ Recession & Unemployment
Inequality	Income Inequality between Workers and Employers	Income Inequality between Financiers and Non-financiers
Employment	Full Employment	Involuntary Unemployment
Sustainability	Sustainability Possible	Environmental Destruction caused by Forced Growth

Table 2: Public Money vs Debt Money System Behaviors

System Behaviors

Monetary Stability
Money supply under debt money system is very unstable. First, currency in circulation is determined by the capricious consumers to demand for liquidity against asset risks. Second, deposits are at the mercy of bankers' attitude to make loans or allow credits. Hence, central bank can only control the amount of M_0. This instability is the root cause of bubbles and credit crunches. Public money system does not cause such monetary instability, and the amount of public money is stable. Thus it becomes free from inflation and deflation.

Financial stability
Financiers' greed drives credit creation and crunches as shown in chapter 14. Combine with monetary instability, economic system of debt money is constantly visited by bubbles and busts, or financial instability. Public money systems eliminates such instability and no bank-runs occur.

> (9) Fractional reserves give our thousands of commercial banks the power to increase or decrease the volume of our circulating medium by increasing or decreasing bank loans and investments. The banks thus exercise what has always, and justly, been considered a prerogative of sovereign power. As each bank exercises this power independently without any centralized control, the resulting changes in the volume of the circulating medium are largely haphazard. This situation is a most important factor in booms and depressions [1, p.19].

Government Debt
Debt accumulation is build in the debt money system simply because government is destined to keep borrowing to provide enough money supply to the growing economy. In other words, debt money system is dead-end, or debt-end as commented by Congressman Denith Kuchinich to my US Congressional Brie fling presentation on July 26, 2011. No such debt accumulation does not occur under the public money system due to the public money financing.

> (17a) Under the present fractional reserve system, the only way to provide the nation with circulating medium for its growing needs is to add continually to our Government's huge bonded debt. Under the 100% reserve system the needed increase in the circulation medium can be accomplished without increasing the interest bearing debt of the Government [1, pp.39,40].

Inequality
Under the debt money system, equity distribution between banks and non-financial sectors tends to expand as discussed in chapter 6. In fact rent-seeking

inequality between financiers and non-financiers has been expanding as pointed out by Nobel laureate economist Joseph Stiglitz in [4]. This type of income inequality is completely eliminated under the pubic money system. However, the inequality between workers and employers (and shareholders) still remains. To remove this root cause of inequality, the economy needs to be further transformed to the MuRatopian economy as presented in Yamaguchi [5].

Employment
Under the debt money system, our economy is repeatedly visited by booms and busts or recessions. Under such circumstances involuntary unemployment become inevitable. Under the pubic money system, booms and busts are avoided which lessens the level of involuntary unemployment. Yet, it's far from full employment constantly. To attain full employment the economy needs be transformed to the MuRatopian economy.

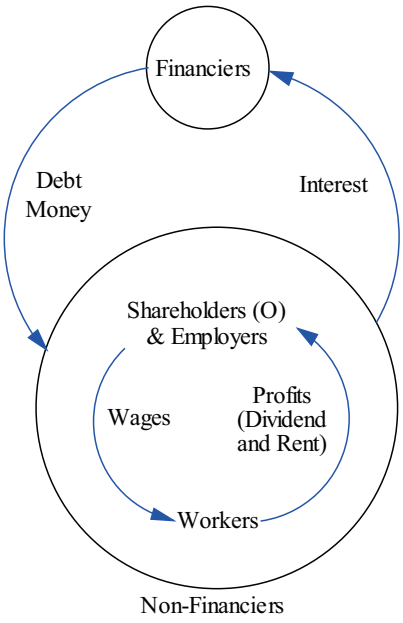

Figure 1: Inequality under Debt Money System

Sustainability
Under the debt money system, borrowers are forced to pay interest which grows exponentially as briefly discussed in chapter 6. Under such circumstances, borrowers, mainly producers, are forced to drive higher economic growth at the cost of environmental destruction. Hence debt money system is in principle unsustainable. Yet many literatures on sustainability fail to point out the close relation between debt money system and unsustainability. In other words, public money system is a necessary condition to pursue sustainability, not sufficient yet.

3 MuRatopian Economy Revisited

As briefly discussed in Preface, I have tried to present our future economy in my Ph.D. dissertation in 1980's as a new social design in place of the capitalist economy that was shifting toward the information economy. The future economy is called MuRatopian economy. Let us explain it by the quotation below.

> However, the re-unification of (1) man and nature, (2) workers and capitalists, or employees and employers, (3) savers and investors,

and (4) producers and consumers will not be realized simultaneously. Moreover, no necessity exists to do so. .....

In any case, we see a new social design in the vision of the re-unification of (1), (2) and (3), and only a partial re-unification of (4). That is, human beings will begin to consider themselves as an inseparable part of nature and will try to live in harmony with nature according to nature's rhythm - the re-unification of (1). Both capitalist and working classes being abolished, all members of the society (and of the globe) will begin to "possess" (and share) their own properties and production units. As a result, the labor market as an exploitation market will eventually be eliminated together with the concept of wage and profit as a category, and Marx unfairness caused by the existence of a working class will also be gone forever - a re-unification of (2). Then, all members of the society (and of the globe) will begin to self-manage their own production units and will make decisions such as savings, investments and consumption by themselves in a co-operative and democratic manner. Let us call such people co-operatively working consumer-workers, in short, co-workers. Accordingly, co-workers will begin to self-manage their own funds (that is, basically they save to invest), and at least the financial capital markets which we observe in a capitalist economy will be gone forever - the re-unification of (3).

We will call such a re-unified future economy *MuRatopian economy* where co-workers work co-operatively in communes, communities, local organizations, and global organizations in harmony with nature. The Japanese word *mura* literally means village. I have envisioned the future society in the spirit and practice of a Japanese village where village people live in a self-sufficient community, help each other co-operatively at the busiest time of harvest, and respect nature's way. The one character word *mura* may also be considered as consisting of two different characters: *Mu* and *Ra*. *Mu* implies "nothingness" or "emptiness" - the most fundamental concept of Zen Buddhism, and *Ra* means "being naked" or "having no possession". Accordingly, I have associated the implications of *Mu* (nothingness) and *Ra* (no possession) with *mura* (village), because I have further envisioned the mind of future society in the combination of these concepts. *-topia* is from the Greek *topos*, which means place. Hence, the word *MuRatopia* is now coined to describe our new social design.

This is our future economy. [5, Pages 169-171]

In the design of the MuRatopian economy, the concept of *possession* plays an important role. What is *possession*, then, in distinction from private ownership in a capitalist economy? It consists of the three principles as quoted below.

A capitalist economy as a social institution presupposes a modern concept of private ownership. The essence of this concept is the

exclusive right to dispose of a private property by its legal owner. In other words, no other person can exercise such a right of disposal without the permission of the legal owner, even if the other person is actually in a state of possessing the property. Hence this concept allows the exclusive and absolute right of property disposal by its private owner *beyond time and space*. A capitalist economy would not function without this legal system of private ownership. For instance, an exchange of a commodity in a market presupposes its owner, because the exchange is nothing but a transfer of private ownership.

In comparison, possession refers to the exclusive right to dispose of a private property by those who are in a state of its actual management, and thus who are sharing it. In other words, possession is a private ownership which is *confined by time and space*. Private ownership only *here* and *now* - this is possession. In this sense if possession is imposed in private ownership, no legal owners of the property can exercise their right of disposal from outside or from past into future. For instance, no shareholders or capitalists can claim a dividend payment of the company they legally own unless they are indeed engaged in the actual production and management activities themselves. This is the essence of possession. And *possession* is the only institutional and legal requirement of property management which is imposed in the MuRatopian economy. To be more specific, for the case of production units this institutional requirement of possession consists of the following three principles:

Principle (1) Automatic possession of the production units at the time of participation.
When co-workers join MuRatopian organizations, they automatically become possessors of the production units and join self-management in a democratic manner. Moreover, no co-workers are dismissed against their will.

Principle (2) Automatic dispossession of the production units at the time of departure.
When co-workers leave MuRatopian organizations, they automatically dispossess the production units and lose control over self-management from outside. Dispossession also occurs at their death, and no one can inherit their possessions unless that person himself or herself joins the organizations.

Principle (3) Possession of the production units as a niche.
Everyone in the MuRatopian economy is entitled to freely create or seek the fittest niche or habitat in the form of possession, but no one is allowed to derive economic benefits from possession itself. In other words, sales of the production units are, under this principle, nothing but a change in the form of possession without payment, and thus the production units as

> physical stocks are continuously self-managed, accumulated or destroyed by new possessors. Hence, co-workers can only derive economic benefits from production and exchange of net flows (= consumption and investment goods), but not from exchange of stocks or the production units themselves.

[5, Pages 171-173]

The structure of the MuRatopian economy is now presented. It is then claimed in [5, Chapter 10] that the following 14 issues could be solvable.

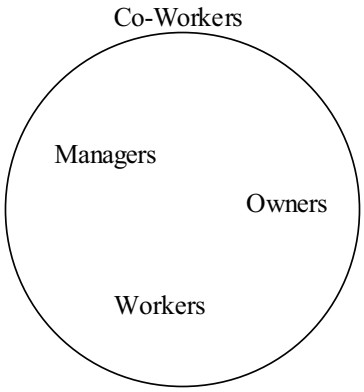

Figure 2: Equality among Co-Workers

Economic Issues Solvable
(1) Unemployment
(2) Exploitation and Unfair Income Distribution
(3) Recession, Inflation and Stagflation
(4) Financial Tycoons
(5) Inhumane Incentives to Technological Innovation

Social Issues Solvable
(6) Concentration and Congestion
(7) Violence and Crime
(8) Discrimination base on Hereditary Factors such as Race, Color, Sex, Age, etc.
(9) Discrimination based on Posterior Factors such as Religion, Belief, Culture, Language, etc.
(10) Alienation and Bureaucracy

Environmental Issues Solvable
(11) Destruction of The Eco-System

International Issues Solvable
(12) Poverty in The Developing Countries
(13) International Conflicts based on National Interest and Different Ideologies
(14) Nuclear Threats and Arms Race

System Structure	
Framework	Public Money
	Possession (against Owership)
Unifications	Co-workers (workers=employers)
	Savers = Investors
	Prosumers (consumers = producers)
Economic Policies	Public Money Policy
System Behaviors	
Monetary Stability	Stable Money Supply
	Stable Price Level
Financial Stability	No Bank-run
Government Debt	No Government Debt
Inequality	Income Equality
	(Inequality between Workers and Employers is eliminated)
Employment	Full Employment
Sustainability	Sustainability

Table 3: Public Money System of the MuRatopian Economy

4 Public Money System of the MuRatopian Economy

Conclusion

This paper tries to comparatively explore monetary and financial stability under the current debt money system and alternative public money system (proposed by the American Monetary Act) by constructing a simplified macroeconomic model of endogenous money creation. In the debt money system we have identified a reinforcing loop of credit creation called "Bankers' Greed", and a balancing loop of credit crunch called "Income Inequality". Due to these two opposing loops built in the system, our simulation analysis found, unstable behaviors of economic growth and inflation rates are inescapably triggered. In other words, monetary and financial instability is built in the debt money system.

On the other hand, Bankers' Greed motives that increase bankers' interest income and worsen income inequality are shown to be averted under the public money system, because bankers lose their power to create credit. In addition, a relatively small income inequality that still remains does not trigger credit crunch, simply because public money never get crunched. Hence, two opposing loops that cause credit creation and crunch are shown to have gone from the public money system, subduing "boom and depressions".

From these analyses it is concluded that the current debt money system is a system of monetary and financial instability, while the public money system is a system of the true monetary and financial stability.

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