

**On the Monetary and Financial Stability
under A Public Money System
- Modeling the American Monetary Act Simplified -**

**The 8th Annual AMI
Monetary Reform Conf.**

**University Center, downtown Chicago
USA**

Sept. 20 - 23, 2012

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1. The Chicago Plan Revisited

**Current Debt Money System
is
Neither Working
Nor Sustainable !**

- **Financial Crises : 1929, 2008**
- **Nat'l Debt Crises: Looming Now!**

According to the IMF, between 1970 and 2010 there were 145 banking crises, 208 monetary crises and 72 sovereign-debt crises. An average of more than 10 per year!

- Money and Sustainability, 2012, p.7. -

Lessons from the Great Depression in 1930s

(1) Banking Act of 1933 (Glass–Steagall Act)
Separation of Depository Banks
from Wall Street Investment Banks

- Repealed in 1999 by
Gramm-Leach-Bliley Act

(2) Chicago Plan

Henry Simons & Paul Douglas (Chicago)
Irving Fisher (Yale) : 100% Money Plan

- Failed to be Implemented

100% MONEY

BY

IRVING FISHER

●
A banking plan designed to eliminate runs on commercial banks; largely to cure or prevent depression; and to wipe out much of the National Debt

First Edition, 1935

Second (Revised) Edition, 1936

Third Edition, 1945 (257 pages)

Designed
to keep checking banks 100% liquid;
to prevent **inflation and deflation**;
largely to cure or prevent **depressions**;
and
to wipe out much of the **National Debt**

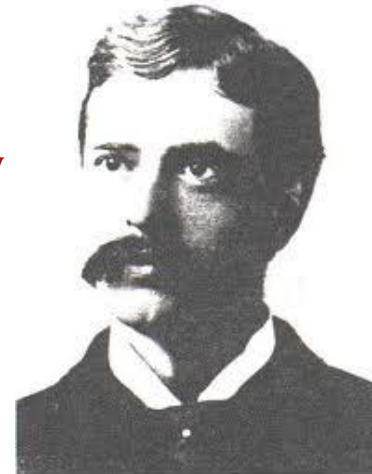
(Third Edition)

NEW HAVEN

The City Printing Company

At one stage in its evolution the book was mimeographed and sent to **one hundred and fifty persons** for criticism.

(Preface to the First Edition, xiv)



Chicago Plan

Irving
Fisher

100% Money
and the
Public Debt

(24 pages)

Professor Emeritus of Economics
Yale University, 1936

As I have stated elsewhere*, I have come to believe that the plan, "properly worked out and applied, is incomparably the best proposal ever offered for speedily and permanently solving the problem of depressions; for it would remove the chief cause of both booms and depressions, namely the instability of demand deposits, tied as they are now, to bank loans." (p.8)

* 100% MONEY, Adelphi Company, NY, 1936

“Economic Forum, Spring Number, April-June 1936, pp. 406-420”

A PROGRAM FOR MONETARY REFORM

(A mimeograph circulated in July 1939

by Paul H. Douglas, Irving Fisher, Frank D. Graham

Earl J. Hamilton, Willford I. King, and Charles R. Whittlesey)

Up to the date of writing (July, 1939) 235 economists from 157 universities and colleges have expressed their general approval of this ``Program"; 40 more have approved it with reservations; (86%) 43 have expressed disapproval.

The remainder have not yet replied.

A PROGRAM FOR MONETARY REFORM

(A mimeograph circulated in July 1939

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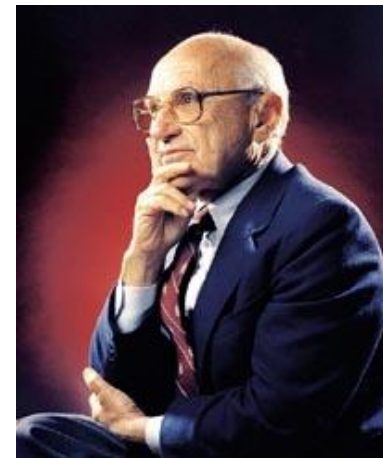
(9) Fractional reserves give our thousands of commercial banks the power to increase or decrease the volume of our circulating medium by increasing or decreasing bank loans and investments. The banks thus exercise what has always, and justly, been considered **a prerogative of sovereign power**. As each 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**.

Missing Main-Product!

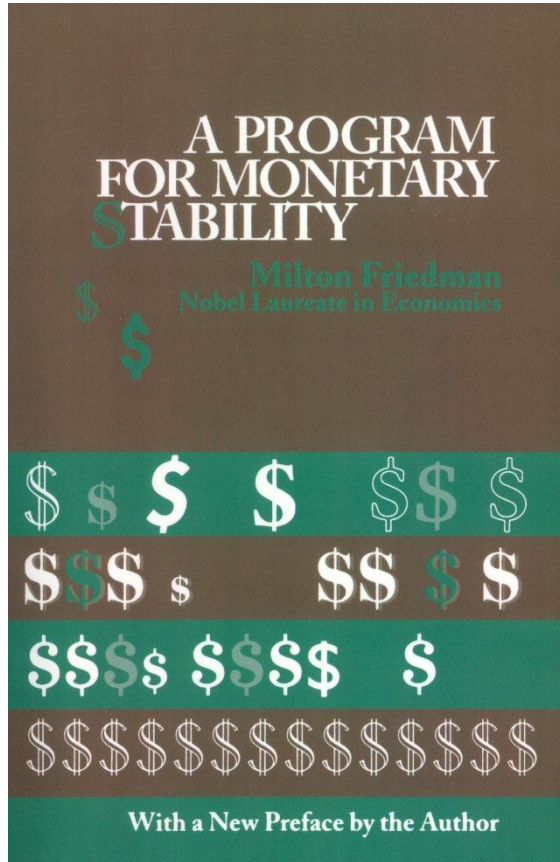
(17a) Under the present fractional reserve system, the only way to provide the nation with circulating medium for its growing needs is to add continually to our Government's huge bonded debt. Under the 100% reserve system the needed increase in the circulation medium can be accomplished without increasing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

(17b) As already noted, a by-product of the 100% reserve system would be that it would enable the Government gradually to reduce its debt, through purchases of Government bonds by the Monetary Authority as new money was needed to take care of expanding business.

Chicago Plan



Milton Friedman
Nobel Prize in Economics,
1982



(1960, 1992 with Preface)

As a student of Henry Simons and Lloyd Mints, I am naturally inclined to take the fractional reserve character of our commercial banking system as the focal point in a discussion of banking reform. I shall follow them also in recommending that the present system be replaced by one in which 100% reserves are required. (p.65)

Debt Money: Current System

- Money out of Nothing (Thin Air) -

What is Debt Money ?

Money Supply

1. **Currency Outstanding**
(Bank Notes and Coins)
- +
2. **Bank Deposits** (Credits)

Coins	4.5	0.9%
Bank Notes	82.3	16.6%
Deposits	410.2	82.5%

Who create Debt Money?

1. Bank Notes by
Privately-Owned
Central Bank
2. Credits Created by
Commercial Banks
(A Fractional Reserve
System)

↓
Monetary Control
by (and for)
the Bankers

A Monetary Reform: Chicago Plan → American Monetary Act

**A Debt Money System
- Money out of Nothing -**

- 1. Privately-Owned Central Bank issues Money (Notes)**
- 2. Credit Creation by Commercial Banks (A Fractional Reserve System)**
- 3. Monetary Control by (and for) the Elite Bankers**

**A Public Money System
- the American Monetary Act -**

- 1. Government Issues Money (Nationalization of the Central Bank)**
- 2. 100% Fractional Reserve (Abolishment of the Credit Creation)**
- 3. Money as Public Utility for the Economic Growth and Public Welfare**

1. On the Liquidation of Government Debt under A Debt-free Money System:
Modeling the American Monetary Act, Seoul, Korea, 2010
2. Workings of A Public Money System of Open Macroeconomies:
Modeling the American Monetary Act Completed,
Washington D.C., USA, 2011



We can liquidate Debt
without triggering
Recession, Unemployment
& Inflation !

US Congressional Briefing
July 26, 2011
At Capitol Hill, Washington DC

H.R. 2990 (Sept. 21, 2011) (Debt Ceiling due 8/2/2011)
“National Emergency Employment Defense Act (NEED)”
A Bill to the US House Committee on Financial Services
by US Congressman Dennis Kucinich,

A Monetary Reform: Chicago Plan → American Monetary Act

Main Product

Removal of the chief cause
of Booms and Depressions

- Monetary Instability
- Financial Instability
- **Income Inequality**

By-Product

Liquidation of Government
Debt without causing

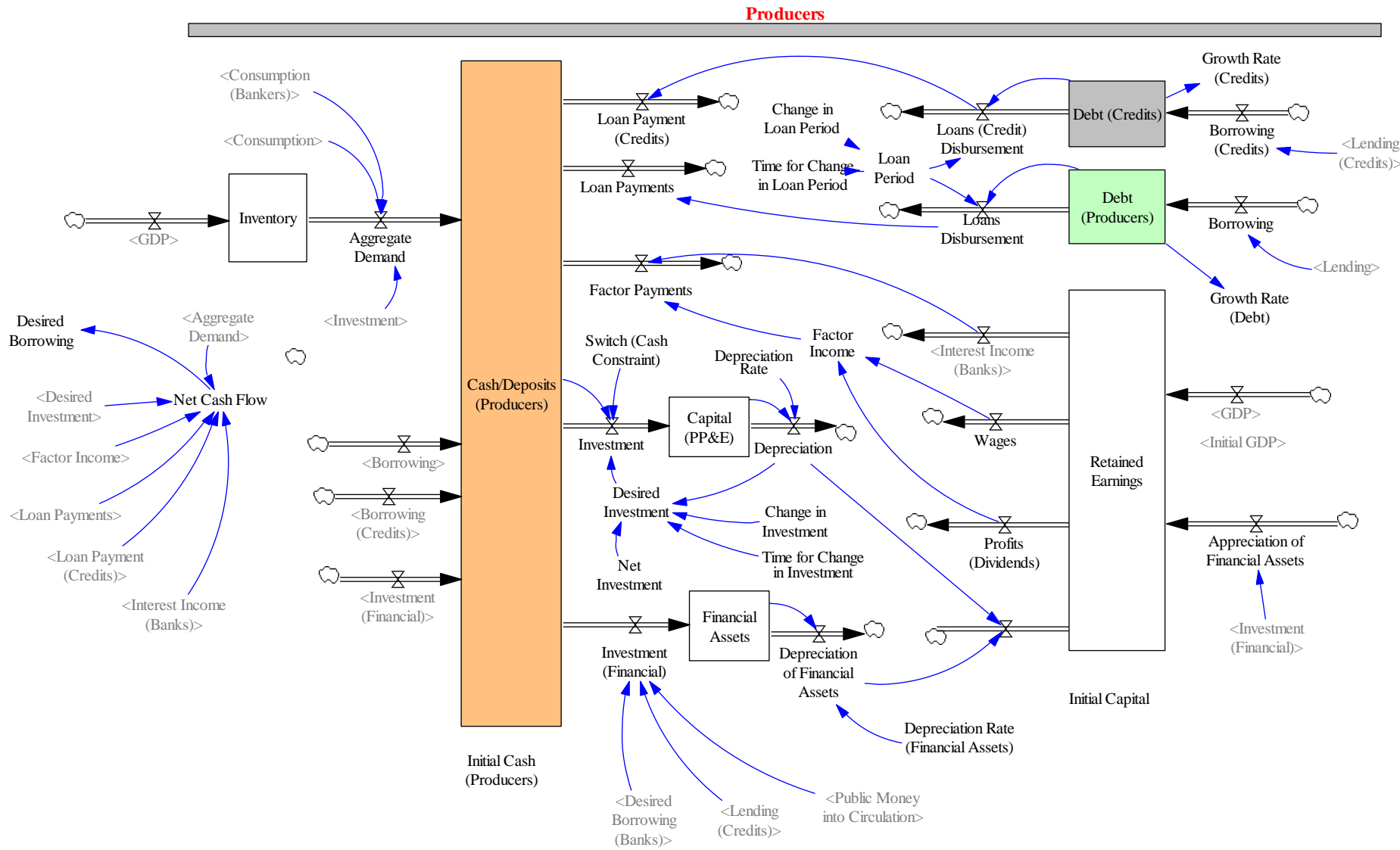
- **Recession**
- **Unemployment**
- **Inflation**
- **Contagious Recession**

2.

Debt vs Public Money

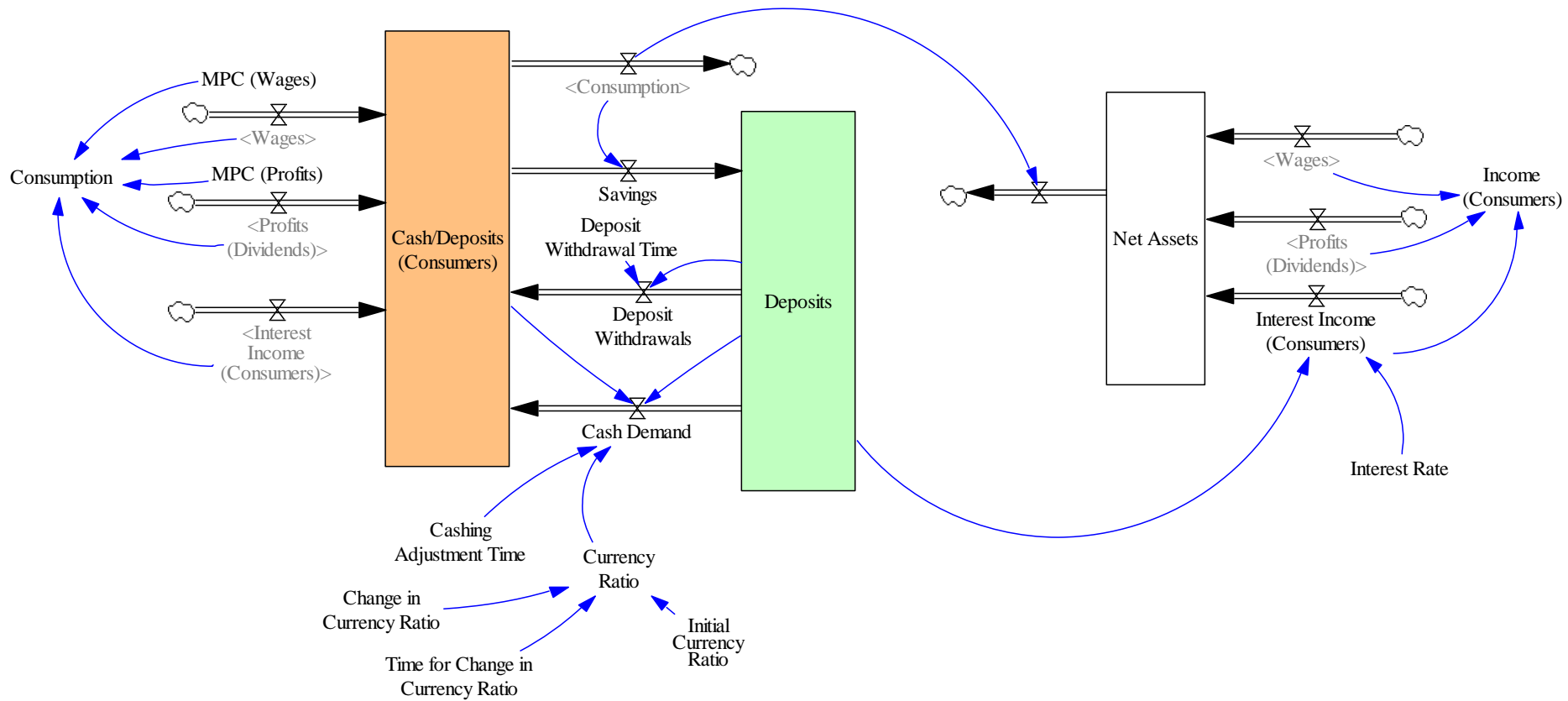
System Simplified

Transactions of Producers



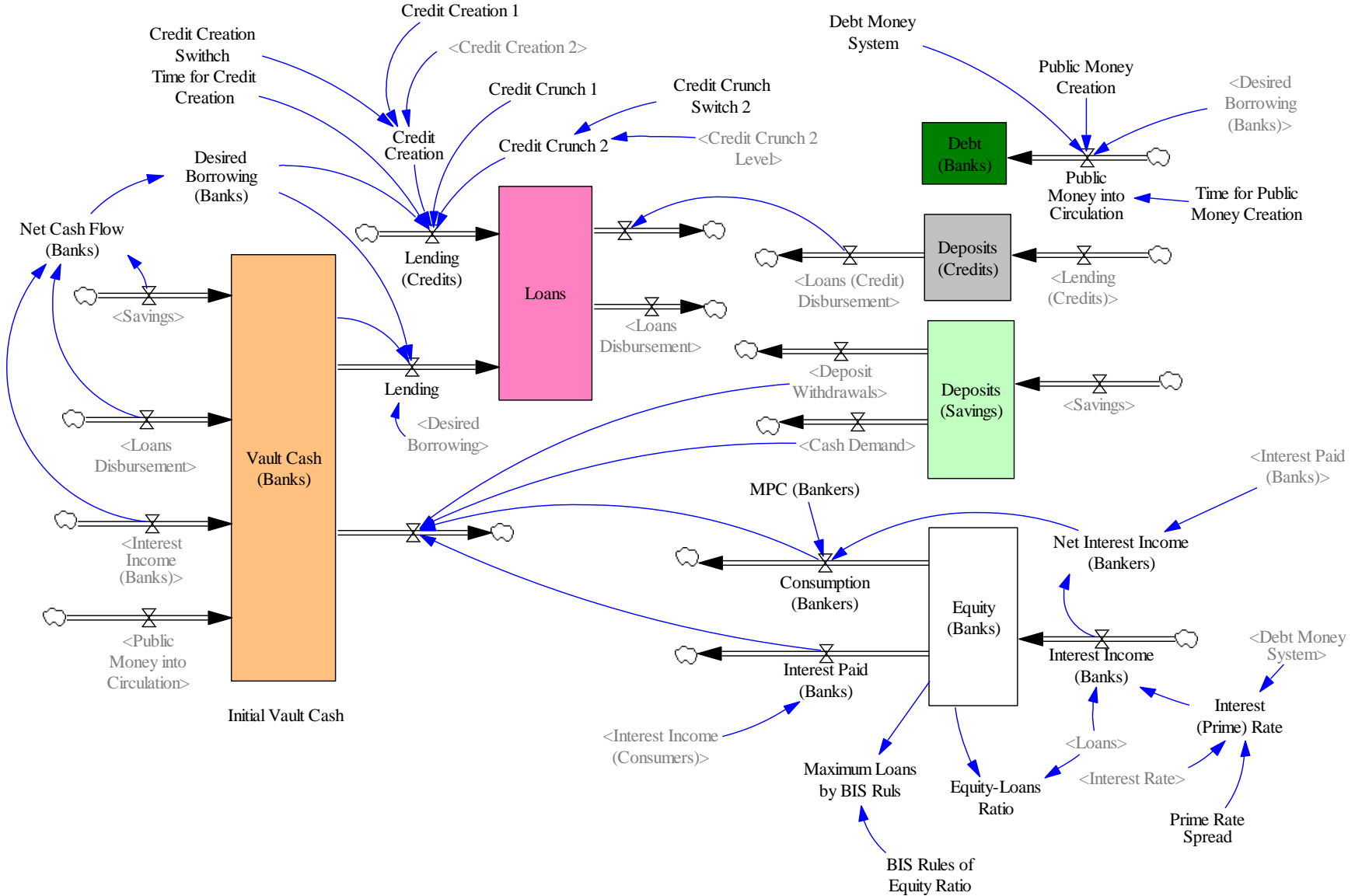
Transactions of Consumers

Consumers (Workers & Shareholders)



Transactions of Banks

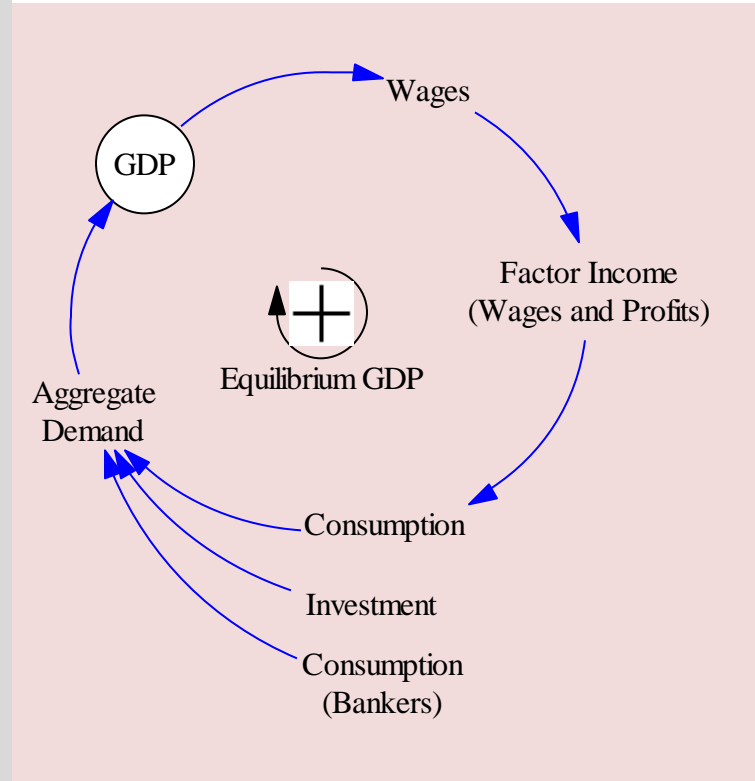
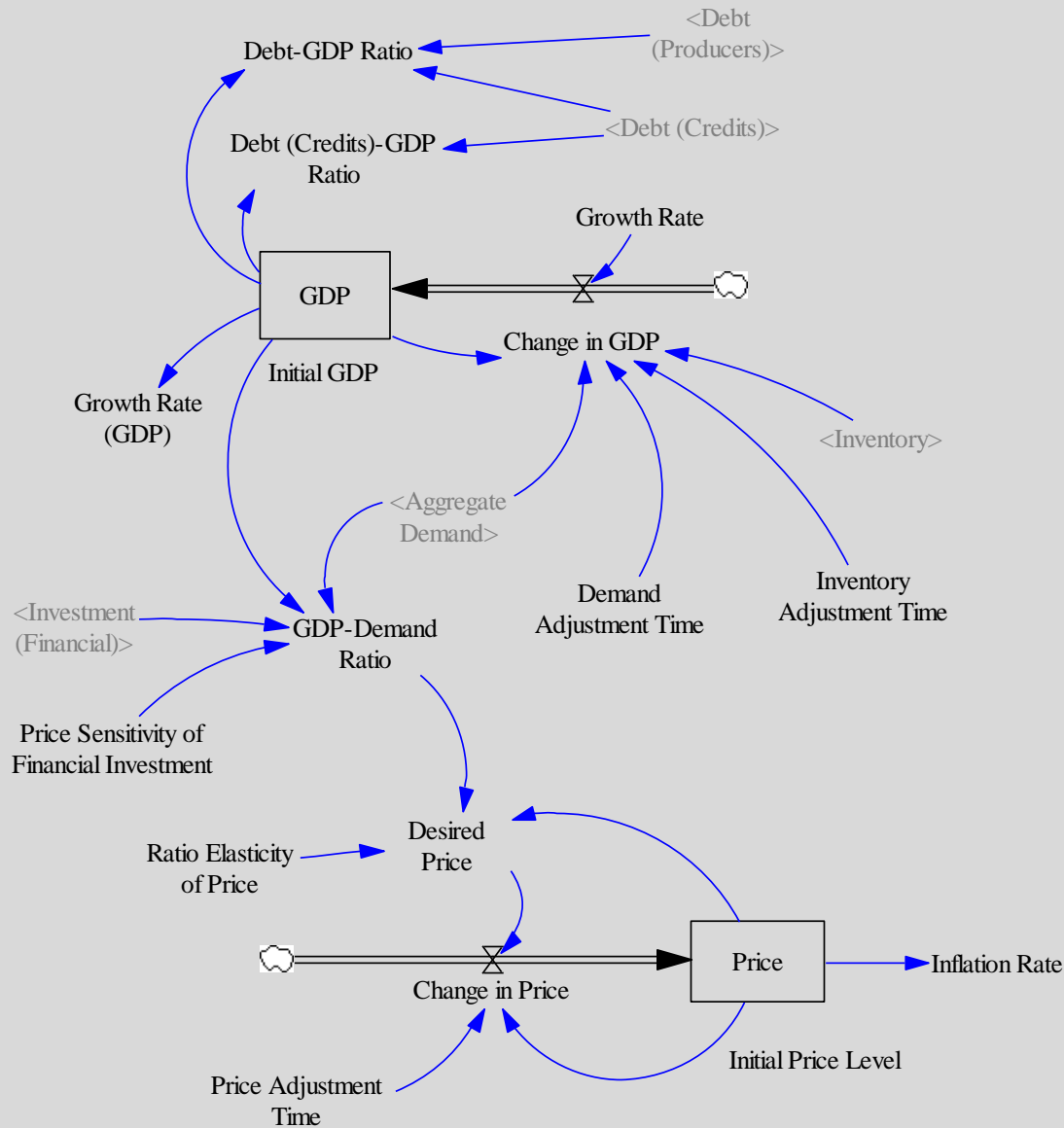
Banks



3.

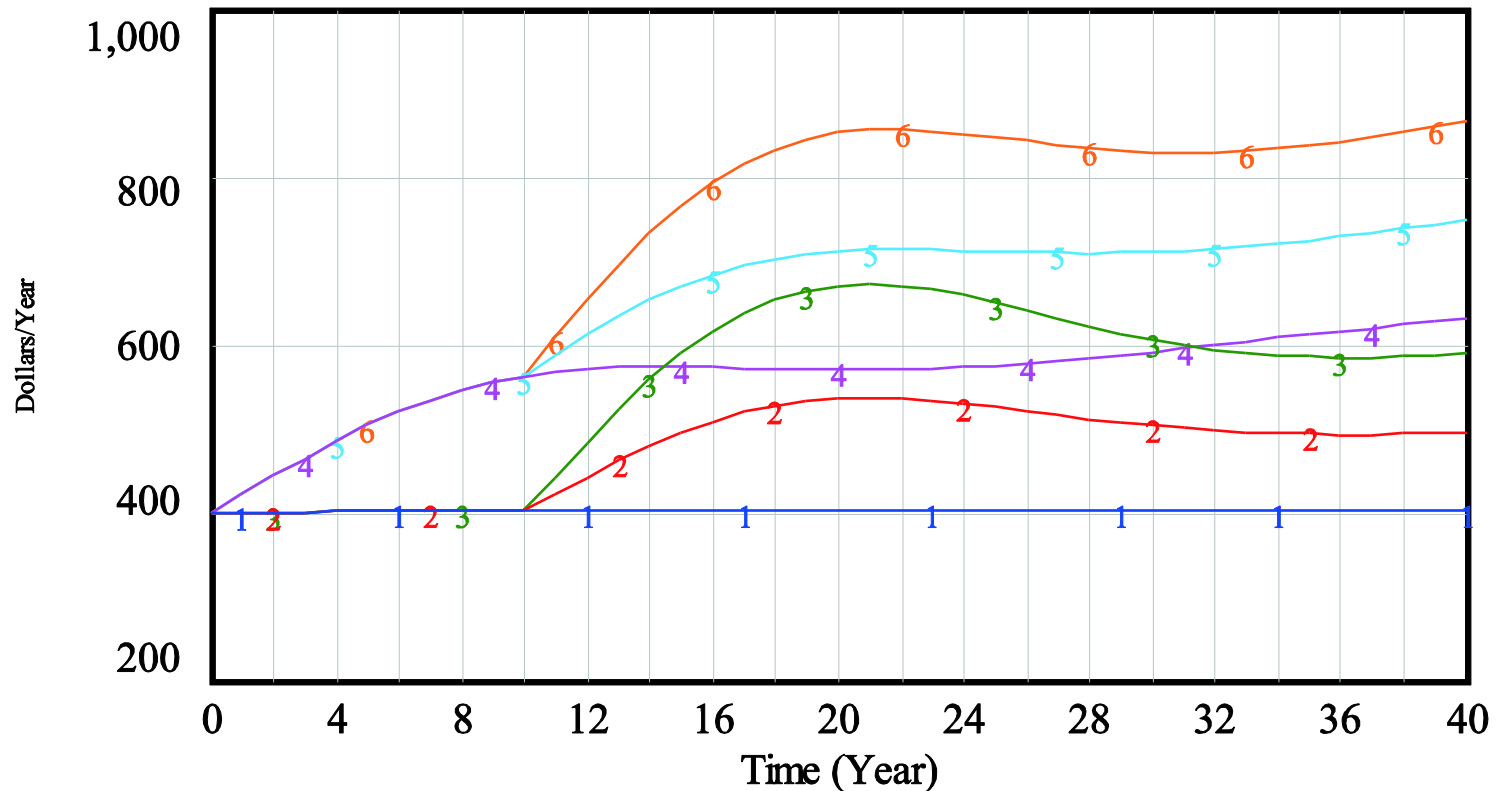
Behaviors of
A Debt Money System

Keynesian GDP Determination



Keynesian GDP Determination

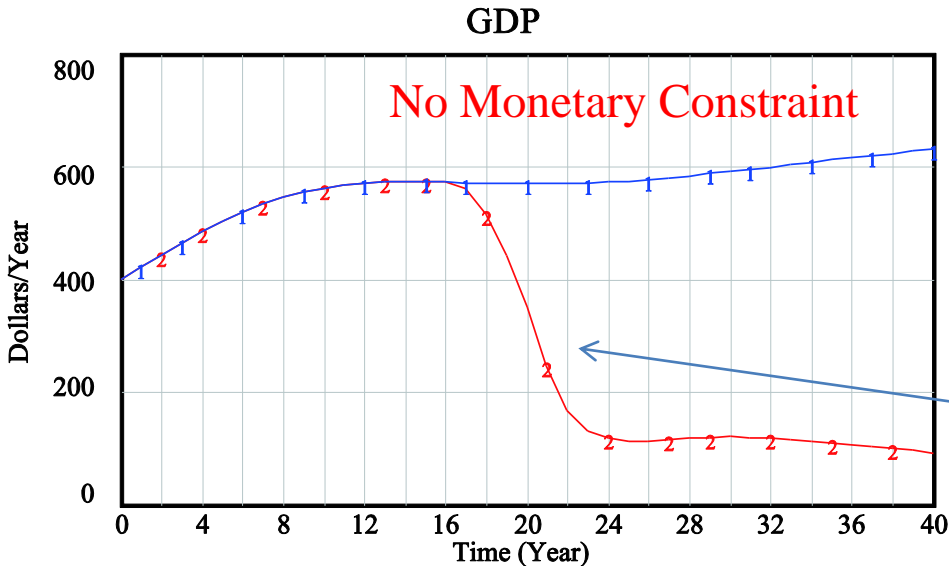
GDP (No Monetary Constraints)



GDP : Investment=80 — 1 — 1
 GDP : Investment=100 — 2 — 2
 GDP : Investment=120 — 3 — 3

GDP : Investment=80(+Dep) — 4 — 4
 GDP : Investment=100(+Dep) — 5 — 5
 GDP : Investment=120(+Dep) — 6 — 6

Monetary Constraint GDP



From now on let us assume
 $I = \$80 + 4\%$ Depreciation

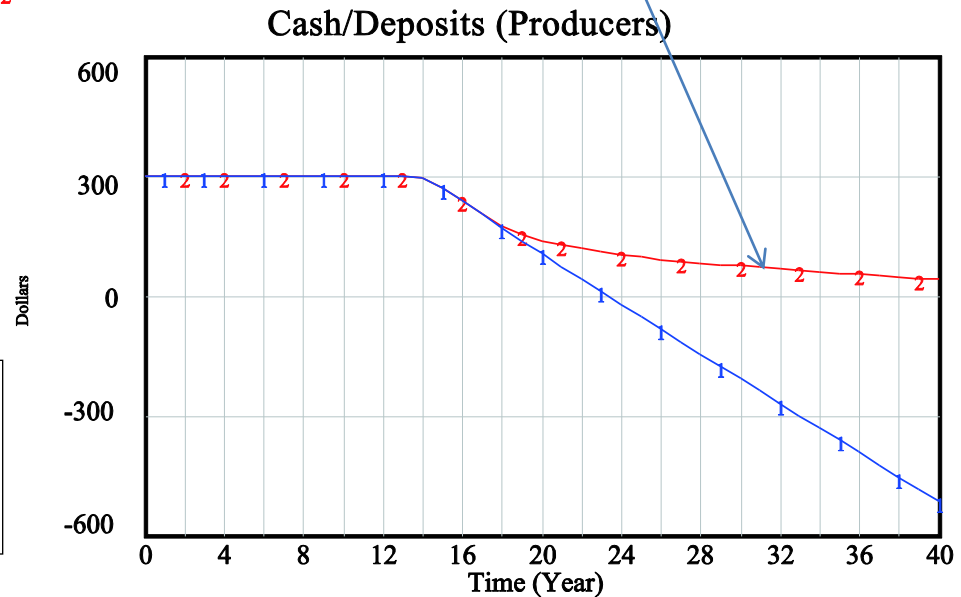
Monetary Constraint

GDP : No Constraint (I=80, D=4%) ———— 1 1 1 1 1 1 1 1 1 1

GDP : Constraint (I=80, D=4%) ———— 2 2 2 2 2 2 2 2 2 2

In a Capitalist Market Economy
 Producers are in a state of Cash Deficiency

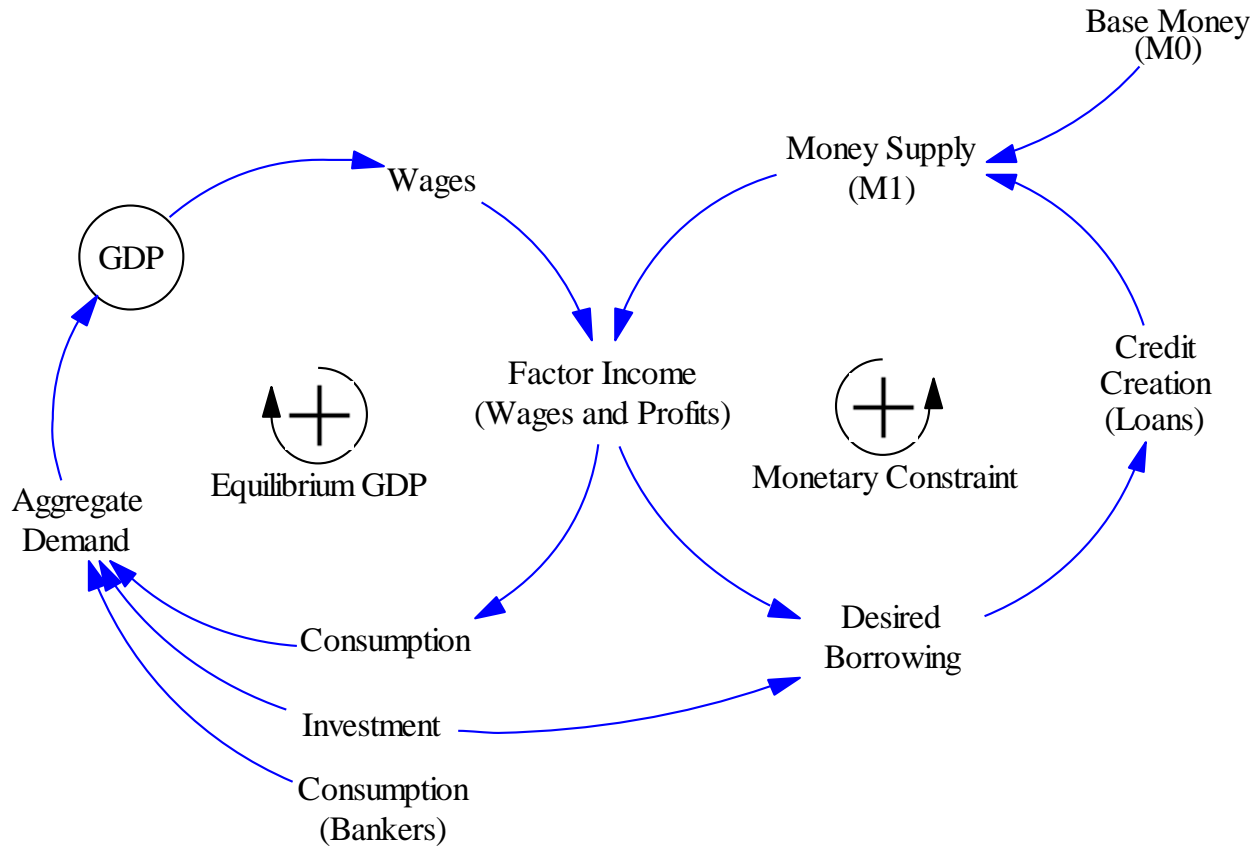
Net Cash Flow
 = - Savings (Consumers and Bankers)
 - Loan Payment



"Cash/Deposits (Producers)" : No Constraint (I=80, D=4%) ———— 1 1 1 1 1 1 1 1 1 1

"Cash/Deposits (Producers)" : Constraint (I=80, D=4%) ———— 2 2 2 2 2 2 2 2 2 2

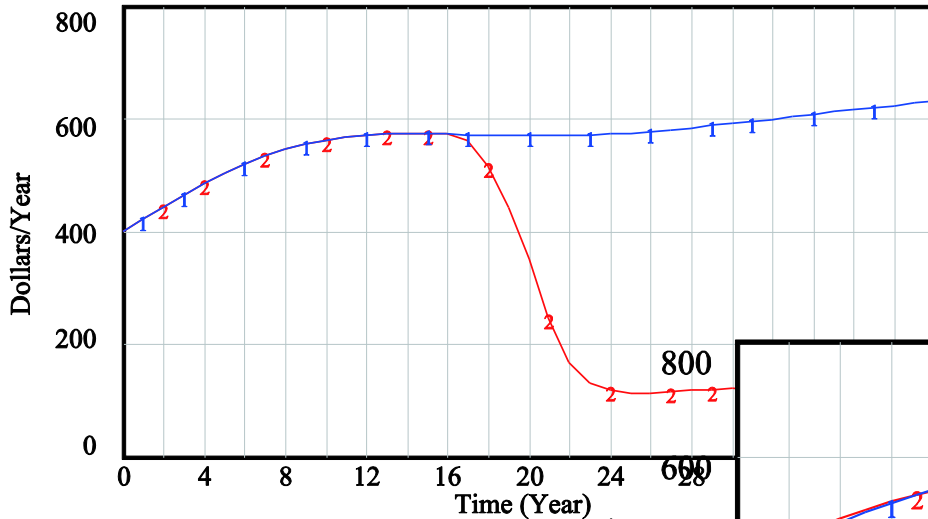
Credit Creation



**Under a Debt Money System,
Cash Deficiency is filled in by
Credit Creation**

Equilibrium GDP by Credit Creation (100%)

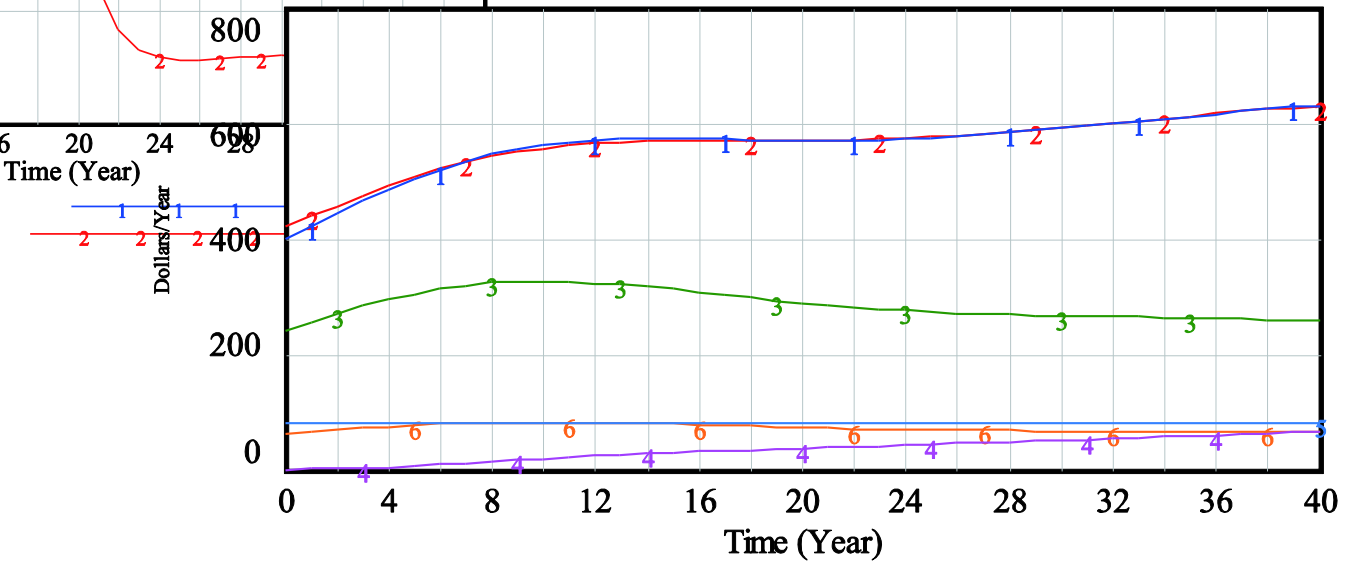
GDP



Desired Borrowing by Banks is 100% met by Credit Creation to attain Equilibrium GDP

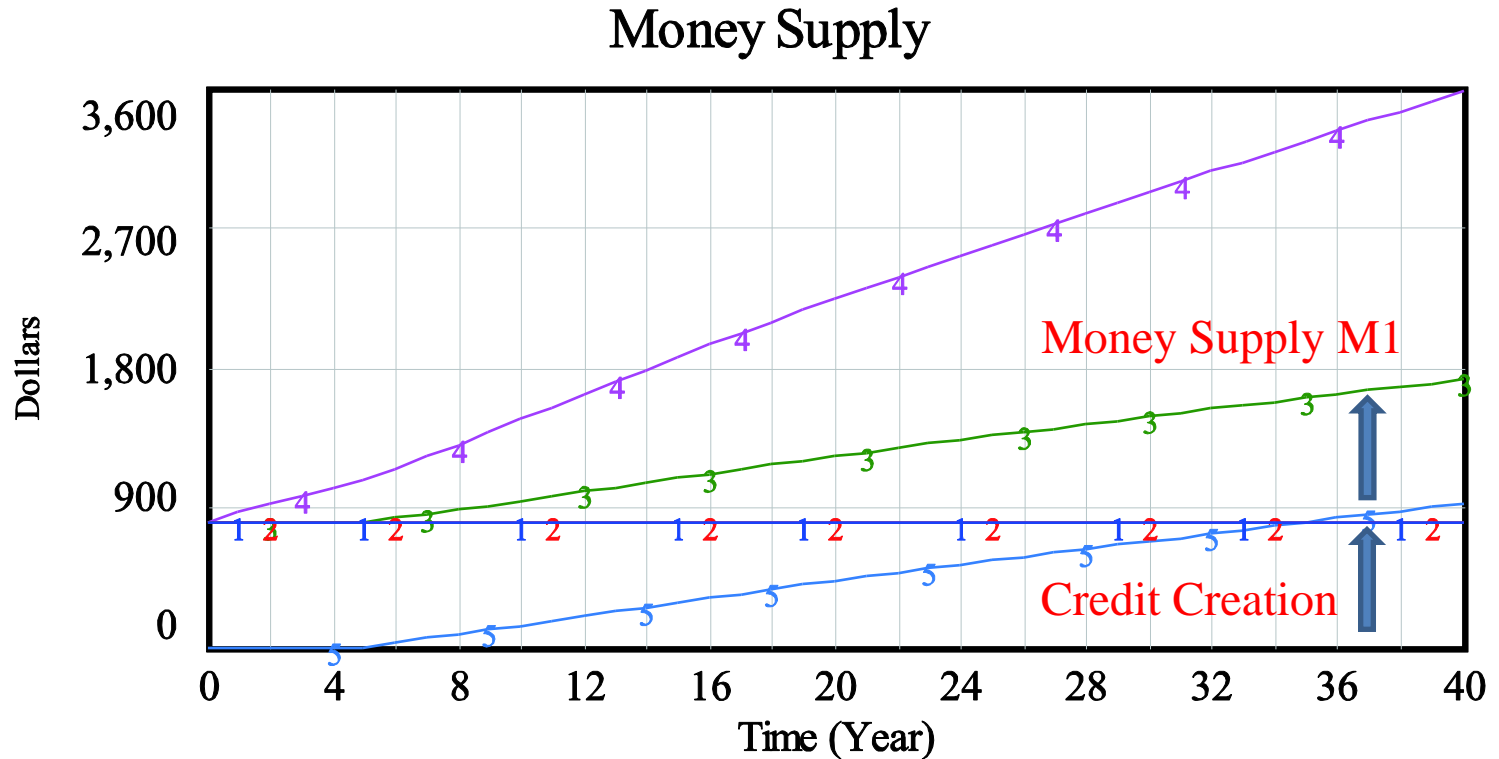
GDP

GDP : No Constraint (I=80, D=4%)
 GDP : Constraint (I=80, D=4%)



GDP : Credit Creation(100%)
 Aggregate Demand : Credit Creation(100%)
 Consumption : Credit Creation(100%)
 "Consumption (Bankers)" : Credit Creation(100%)
 Net Investment : Credit Creation(100%)
 Savings : Credit Creation(100%)

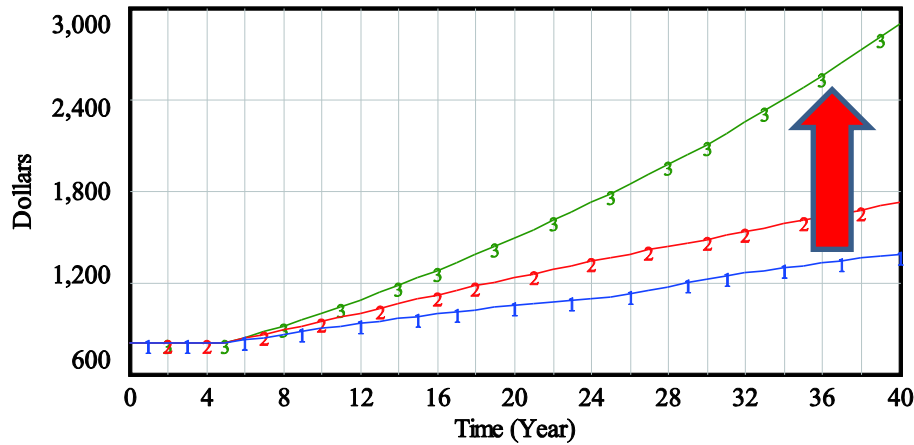
Money Supply: M0, M1 and M2



- Initial Base Money : Credit Creation(100%) — 1 — 1 — 1 — 1 — 1
- "Base Money (M0)" : Credit Creation(100%) — 2 — 2 — 2 — 2 — 2
- "Money Supply (M1)" : Credit Creation(100%) — 3 — 3 — 3 — 3 — 3
- "Money Supply (M2)" : Credit Creation(100%) — 4 — 4 — 4 — 4 — 4
- Money out of Nothing : Credit Creation(100%) — 5 — 5 — 5 — 5 — 5

What Drives Bankers To Create Credits?

Money Supply (M1) under 3 Credit Creation Levels



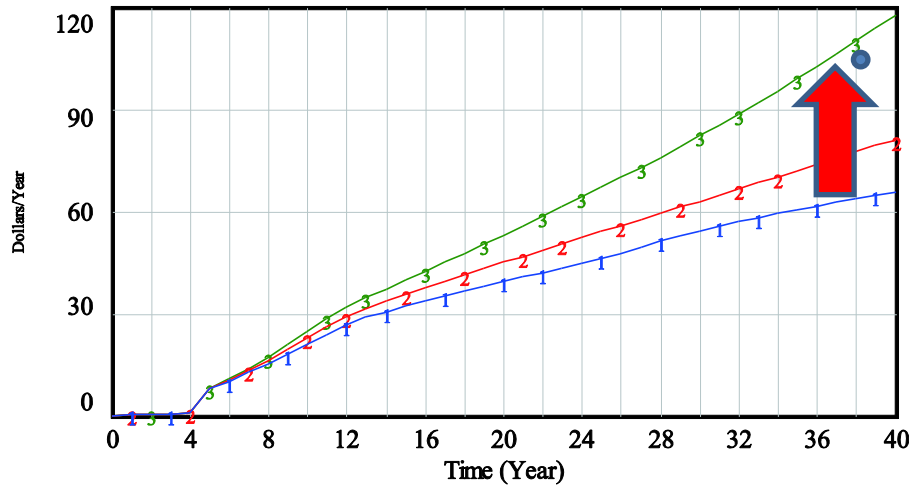
As More Credits are Created

"Money Supply (M1)": Credit Creation(70%)

"Money Supply (M1)": Credit Creation(100%)

"Money Supply (M1)": Credit Creation(130%)

Net Interest Income (Bankers)



Bankers' Interest Incomes Increase!

"Net Interest Income (Bankers)": Credit Creation(70%)

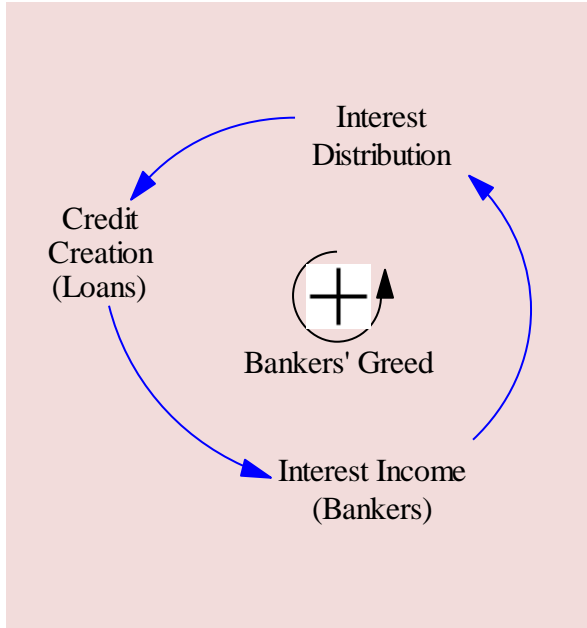
"Net Interest Income (Bankers)": Credit Creation(100%)

"Net Interest Income (Bankers)": Credit Creation(130%)



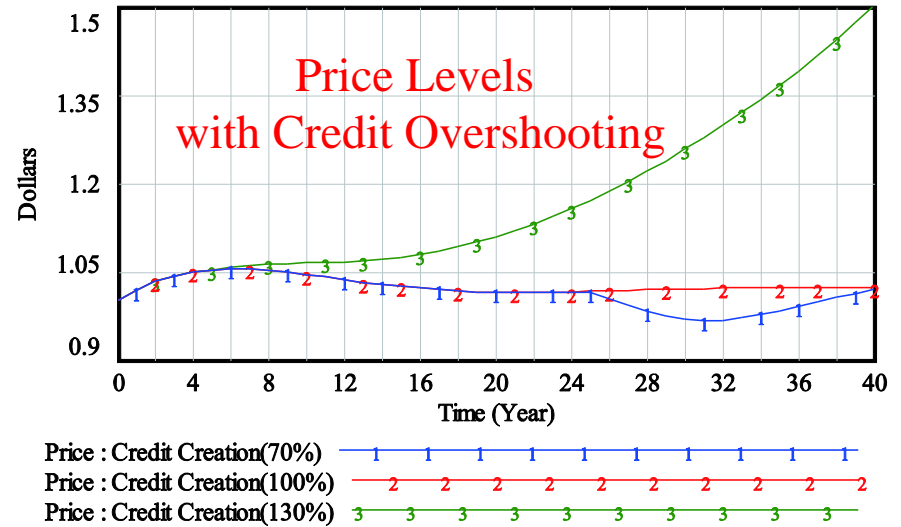
Bankers' Rent Seeking !!!

Consequences of Greed (1): Credit Overshooting!

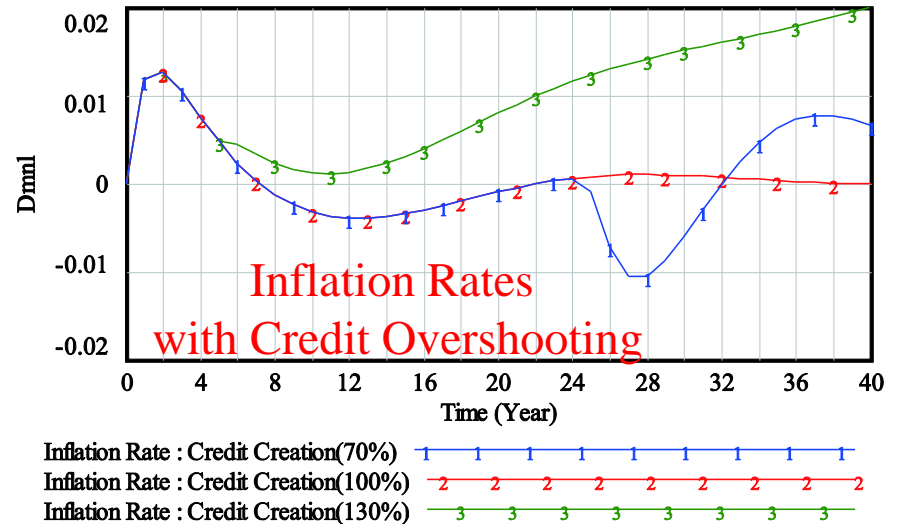


Reinforcing Feedback Loop
of Bankers' Greed

Prices under 3 Credit Creation Levels

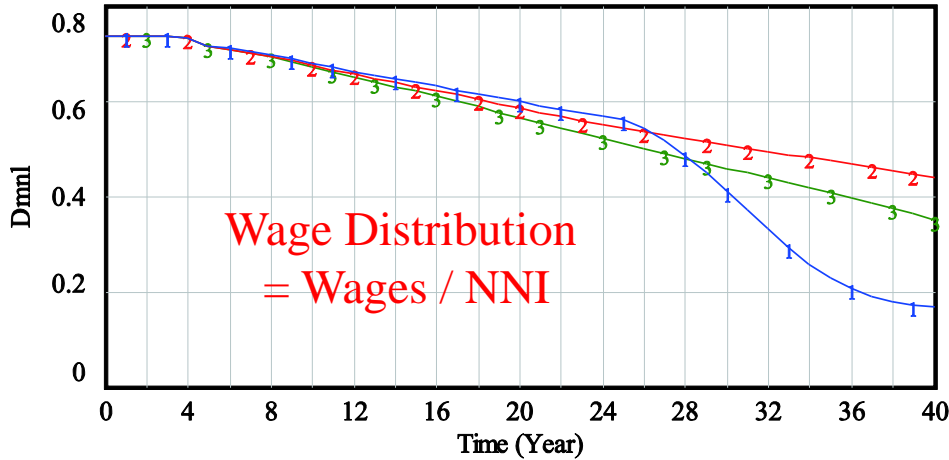


Inflation Rates under 3 Credit Creation Levels



Consequences of Greed (2): Income Inequality!

Wage Distribution

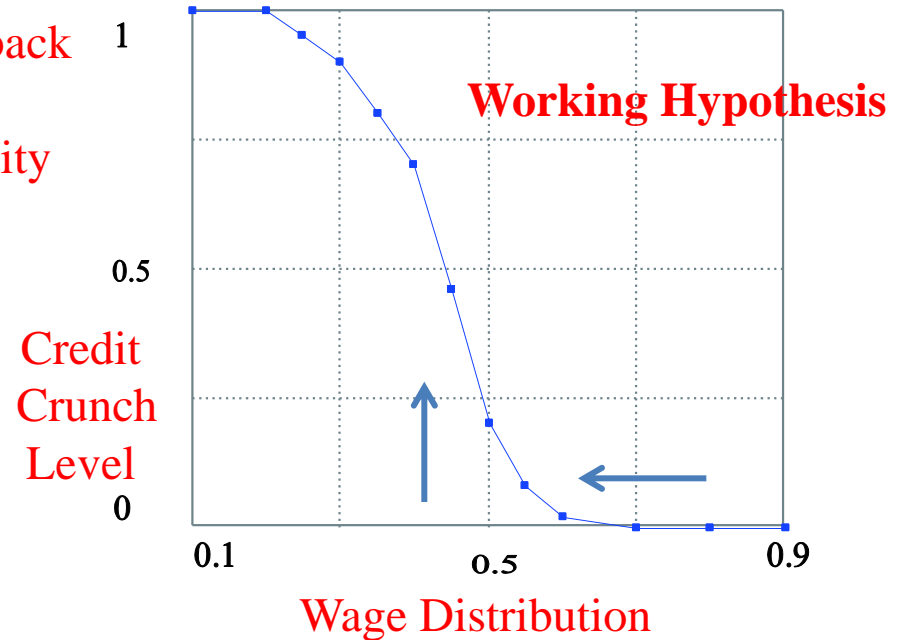


(1) Income Inequality gets worsened overall

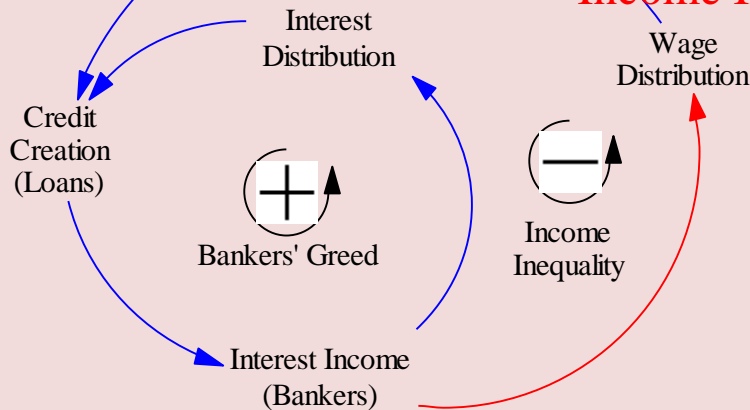
(2) Income Inequality gets worsened under Disequilibria

Wage Distribution : Credit Creation(70%) ———— 1 ————
 Wage Distribution : Credit Creation(100%) ———— 2 ————
 Wage Distribution : Credit Creation(130%) ———— 3 ————

Graph Lookup - Credit Crunch 2 Level Table

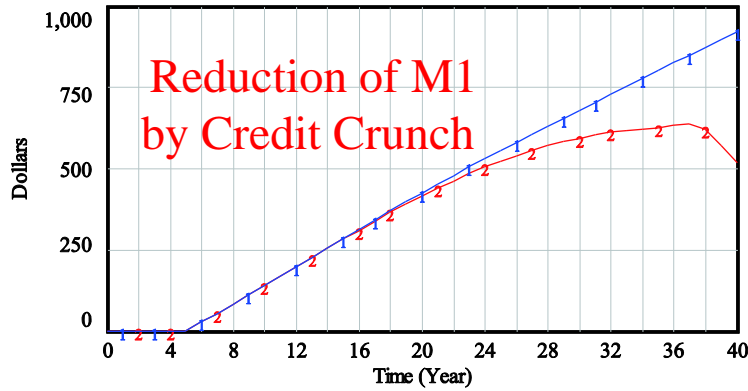


Balancing Feedback Loop of Income Inequality



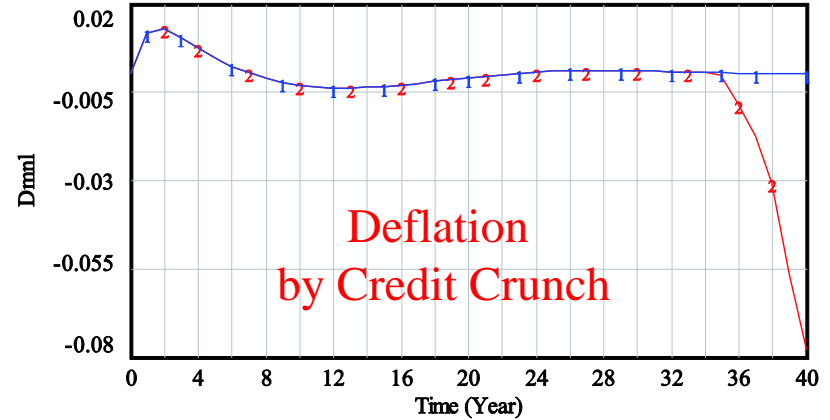
Consequences of Greed (3): Credit Crunch and Recession!

Money out of Nothing



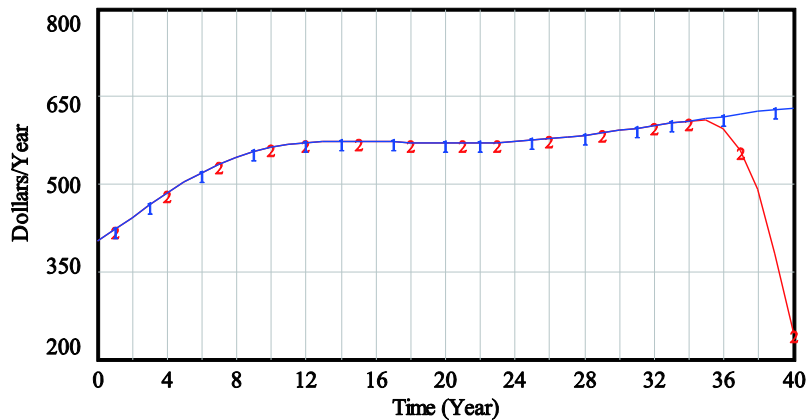
Money out of Nothing : Credit Creation(100%) ————
 Money out of Nothing : Credit Crunch ————

Inflation Rates



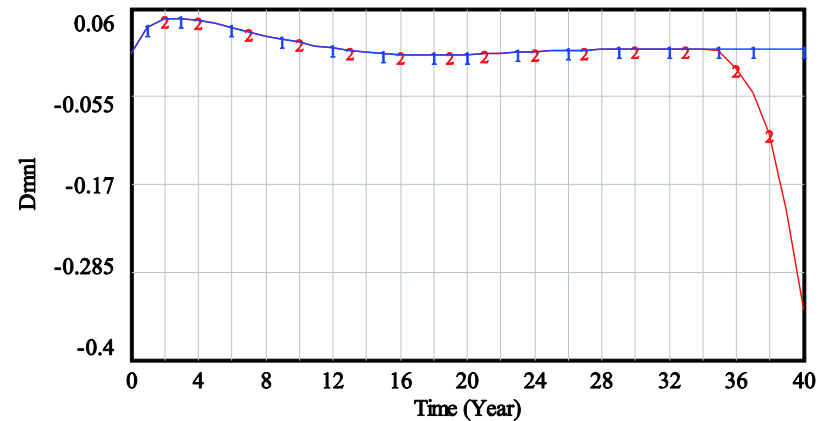
Inflation Rate : Credit Creation(100%) ————
 Inflation Rate : Credit Crunch ————

GDP



GDP : Credit Creation(100%) ————
 GDP : Credit Crunch ————

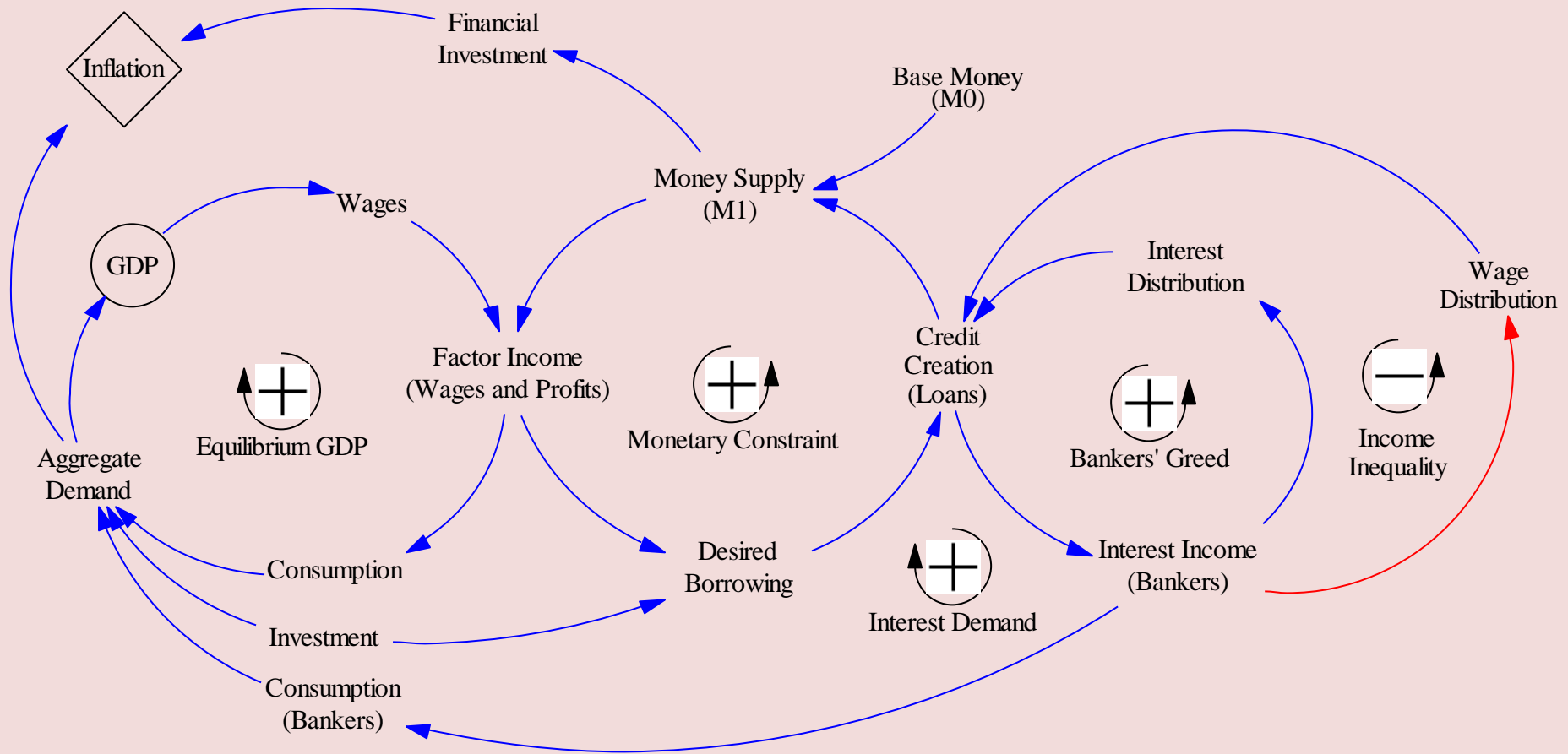
Growth Rates (GDP)



"Growth Rate (GDP)" : Credit Creation(100%) ————
 "Growth Rate (GDP)" : Credit Crunch ————

Recession (GDP and Growth Rate) triggered by Credit Crunch

Causal Loop Diagram of Debt Money System

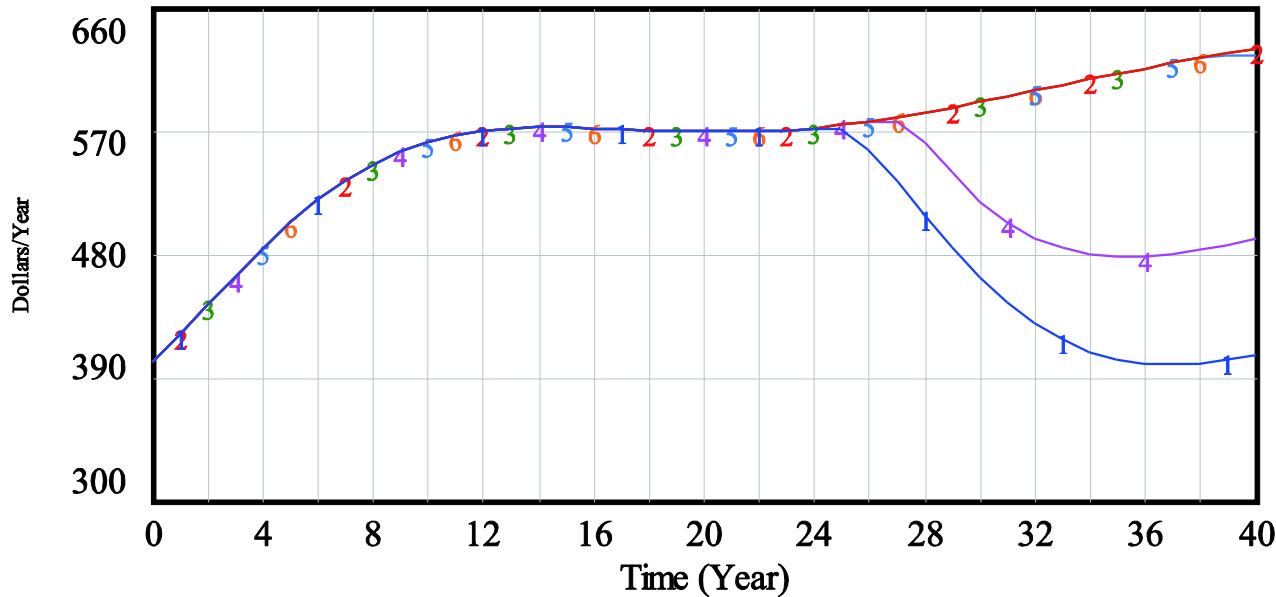


4.

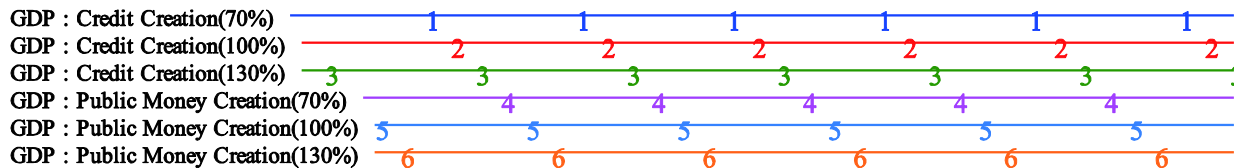
Behaviors of
A Public Money System

GDP under Debt vs Public Money System

GDP

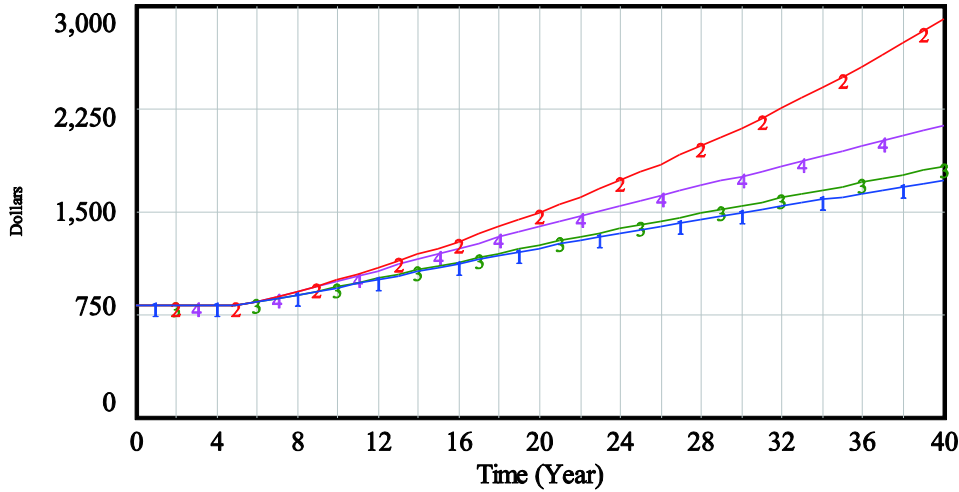


1. Credit Creation (70%)
2. Credit Creation (100%)
3. Credit Creation (130%)
4. Public Money (70%)
5. Public Money (100%)
6. Public Money (130%)



Money Supply and Inflation under Debt vs Public Money

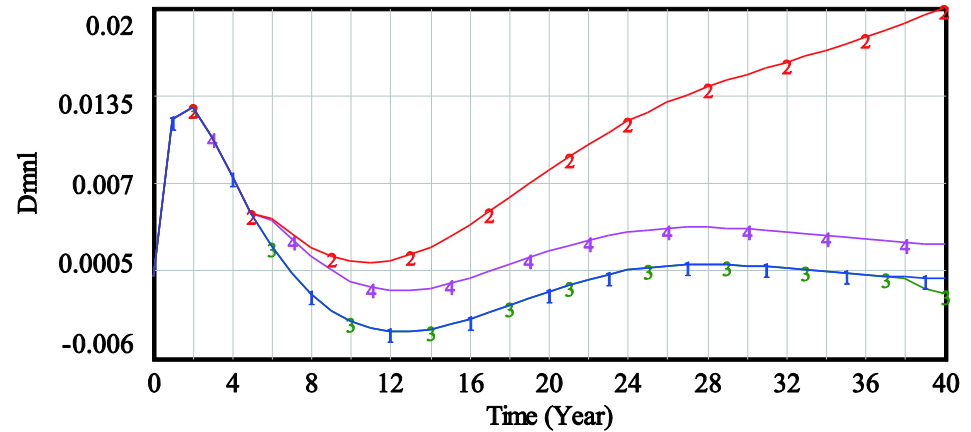
Money Supply (M1)



1. Credit Creation (100%)
2. Credit Creation (130%)
3. Public Money (100%)
4. Public Money (130%)

"Money Supply (M1)" : Credit Creation(100%) 1
 "Money Supply (M1)" : Credit Creation(130%) 2
 "Money Supply (M1)" : Public Money Creation(100%) 3
 "Money Supply (M1)" : Public Money Creation(130%) 4

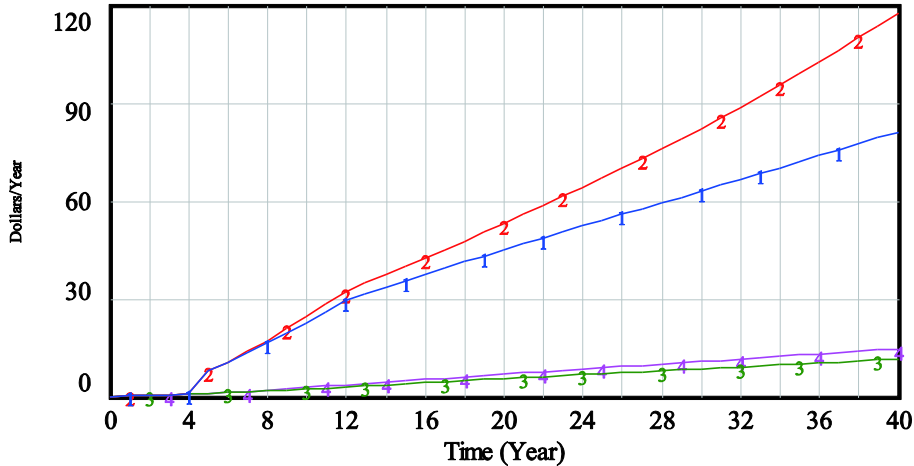
Inflation Rates



Inflation Rate : Credit Creation(100%) 1
 Inflation Rate : Credit Creation(130%) 2
 Inflation Rate : Public Money Creation(100%) 3
 Inflation Rate : Public Money Creation(130%) 4

Interest Income and Wage Distribution under Debt vs Public Money

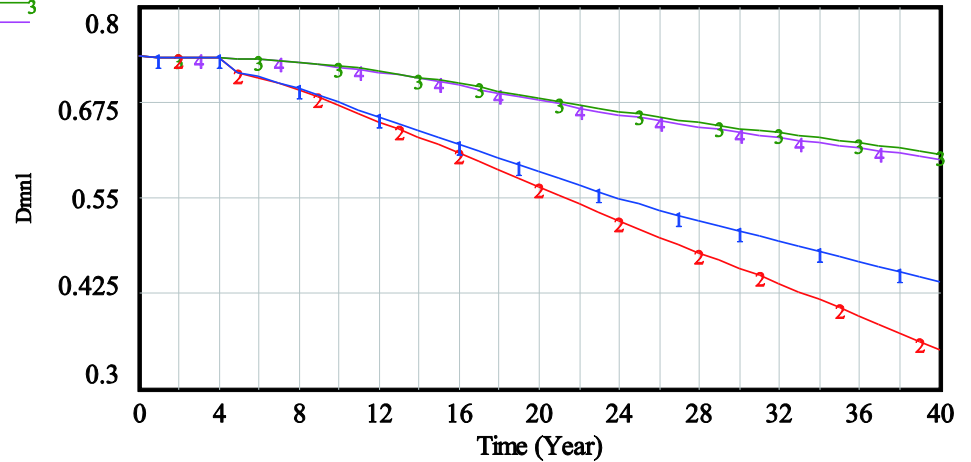
Net Interest Income (Bankers)



1. Credit Creation (100%)
2. Credit Creation (130%)
3. Public Money (100%)
4. Public Money (130%)

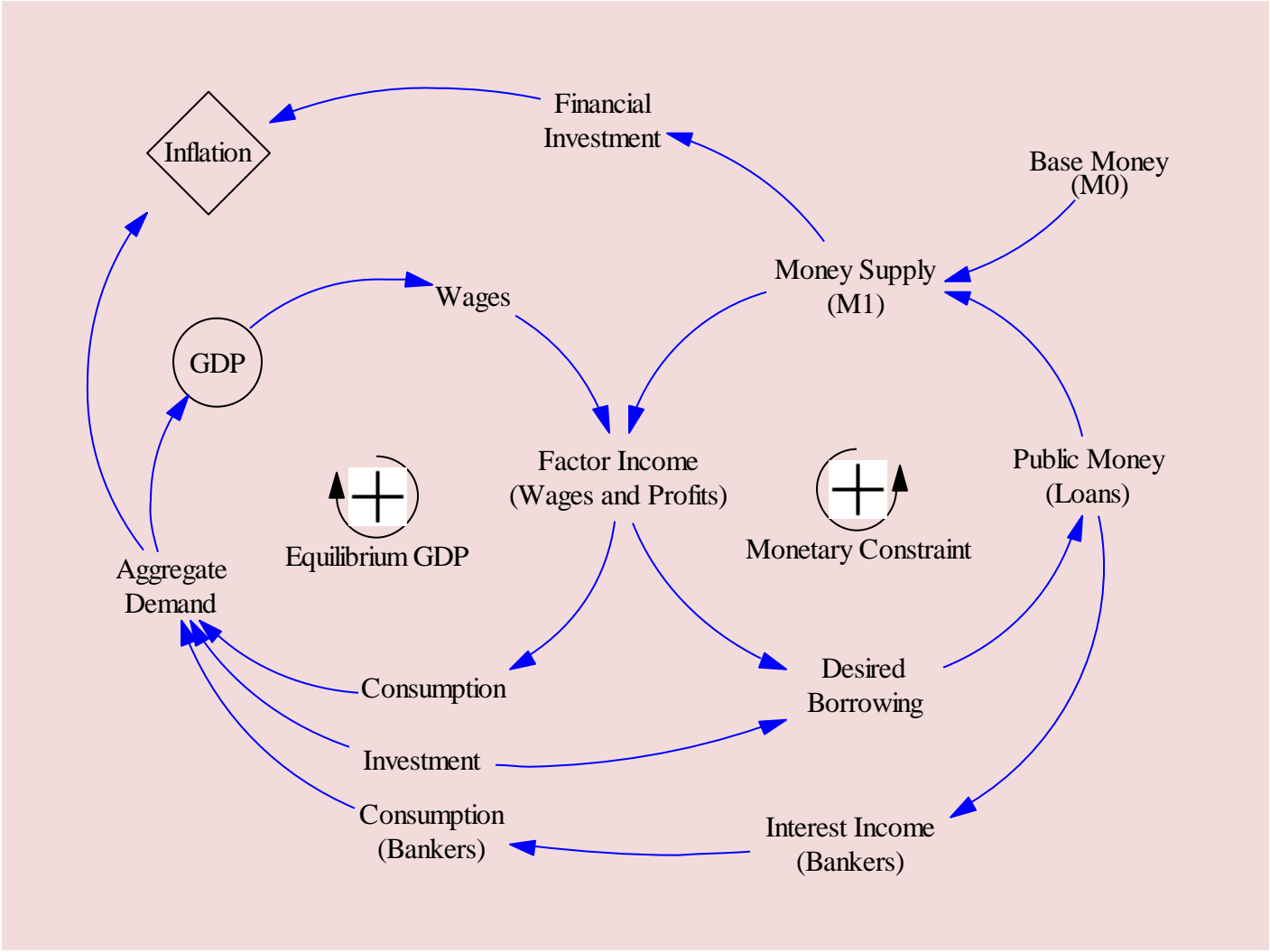
"Net Interest Income (Bankers)" : Credit Creation(100%) 1 1 1 1 1 1 1 1 1 1
 "Net Interest Income (Bankers)" : Credit Creation(130%) 2 2 2 2 2 2 2 2 2 2
 "Net Interest Income (Bankers)" : Public Money Creation(100%) 3 3 3 3 3 3 3 3 3 3
 "Net Interest Income (Bankers)" : Public Money Creation(130%) 4 4 4 4 4 4 4 4 4 4

Wage Distribution



Wage Distribution : Credit Creation(100%) 1 1 1 1 1 1 1 1 1 1
 Wage Distribution : Credit Creation(130%) 2 2 2 2 2 2 2 2 2 2
 Wage Distribution : Public Money Creation(100%) 3 3 3 3 3 3 3 3 3 3
 Wage Distribution : Public Money Creation(130%) 4 4 4 4 4 4 4 4 4 4

Causal Loop Diagram of Public Money System



Debt-vs-Public System Sensitivity Analysis

20% < Level of Desired Borrowing (Banks) < 180%

Random Normal Distribution
with mean = 1 and
Standard Deviation = 0.2

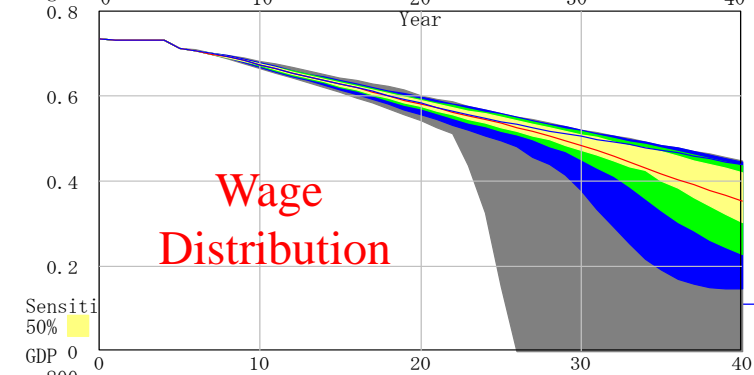
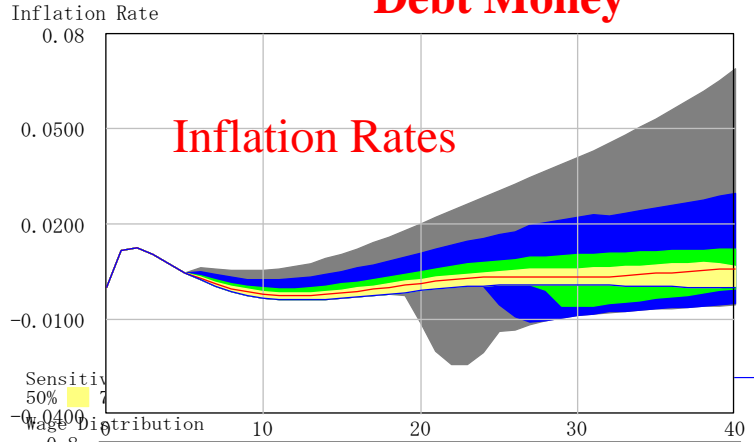
(9) Fractional reserves give our thousands of commercial banks the power to increase or decrease the volume of our circulating medium by increasing or decreasing bank loans and investments. The banks thus exercise what has always, and justly, been considered **a prerogative of sovereign power**. As each 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**.

- Chicago Plan -

Debt-vs-Public System Sensitivity Analysis

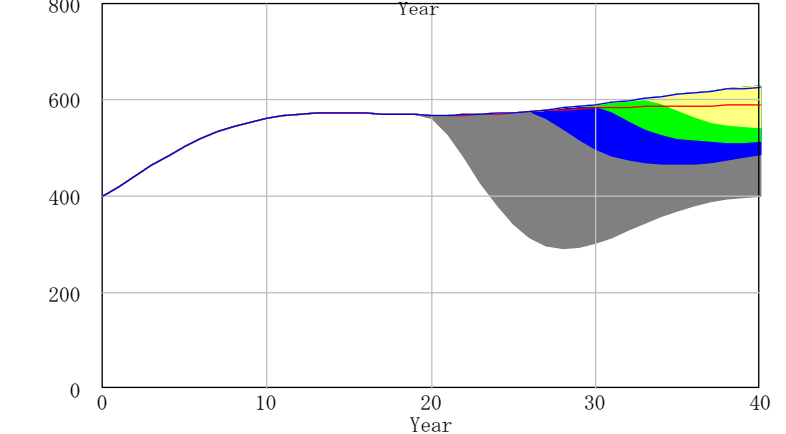
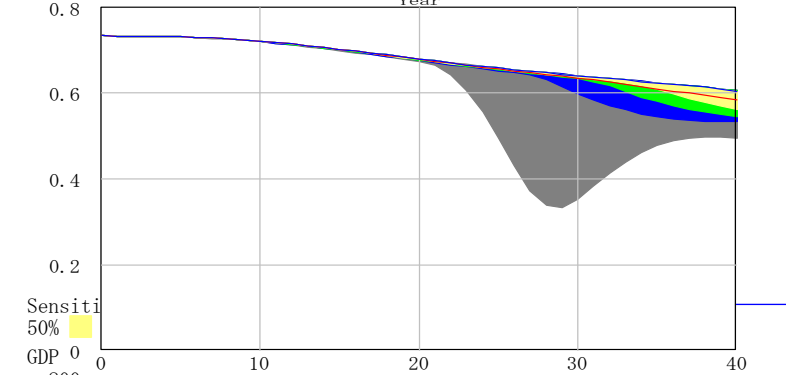
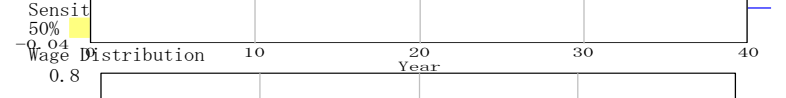
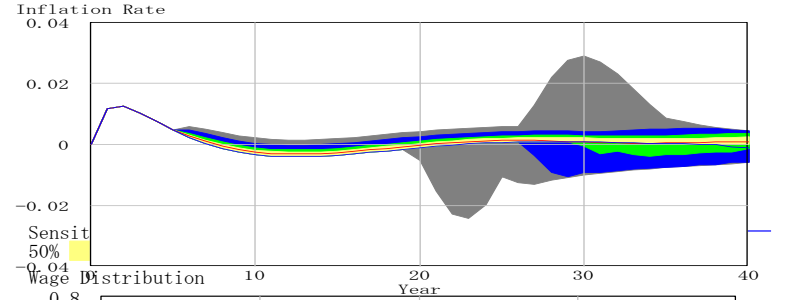
Sensitivity (Debt)
 50% 75% 95% 100%

Debt Money



Public Money

Sensitivity (Public)
 50% 75% 95% 100%



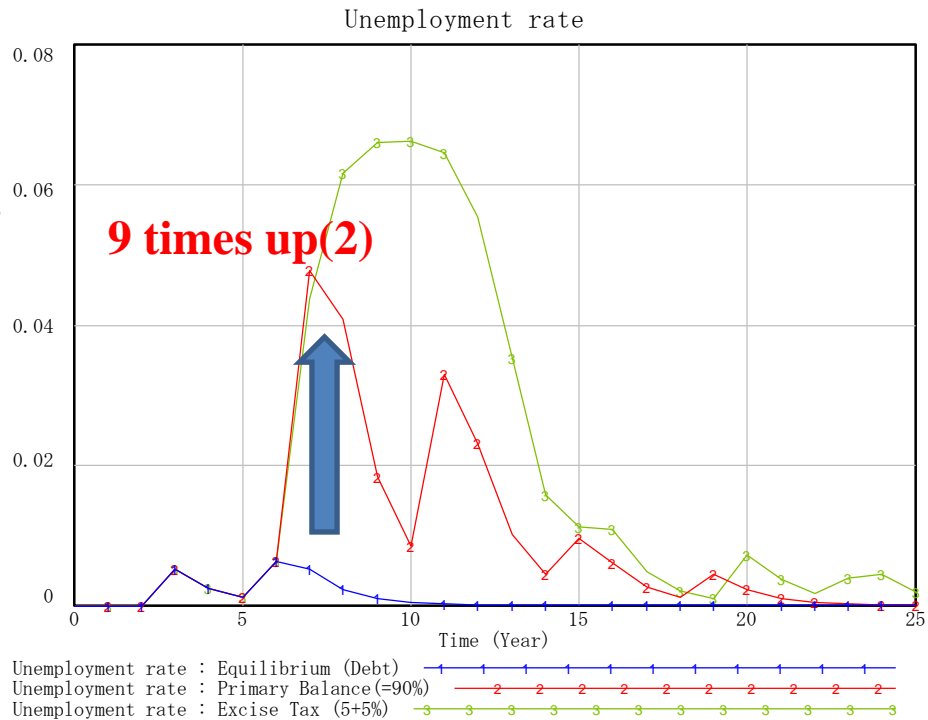
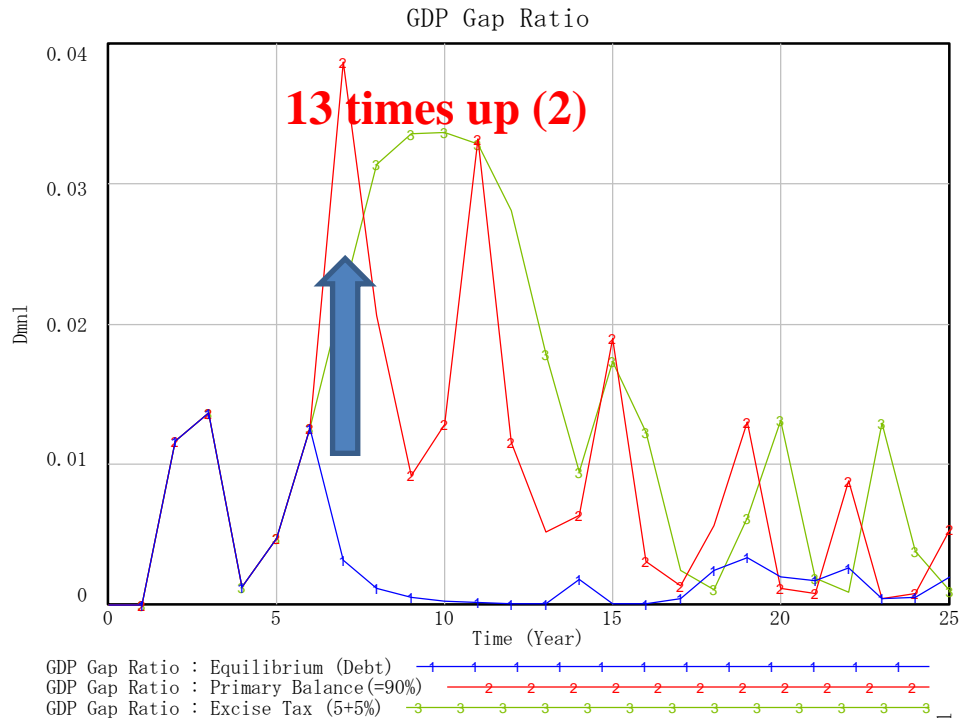
5. Conclusion

- In the **debt money** system,
 - Bankers' Greed (reinforcing loop)
 - Income Inequality (balancing loop)
 - ➔ Unstable behaviors of economic growth, inflation, and income inequality.
 - ➔ Monetary and financial instability is built in the system
- In the **public money** system,
 - No Bankers' Greed Loop
 - Relatively Small Income Inequality
 - ➔ No Credit Crunch, subduing "Boom and Depression"
 - ➔ True monetary and financial stability

GDP Gap Ratio and Unemployment Rate

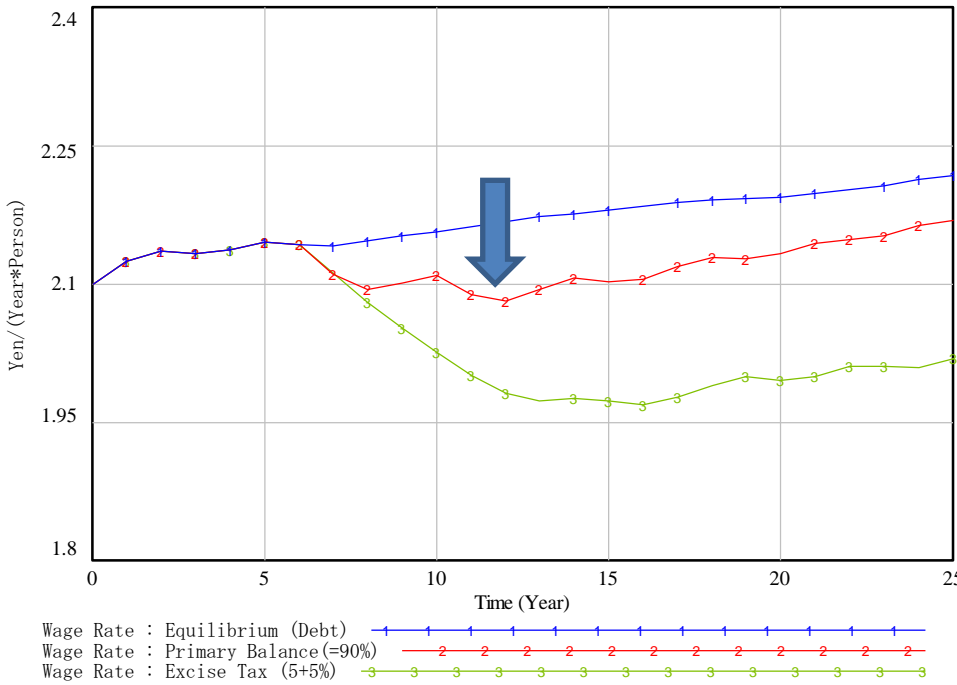
Results from the 2nd Paper (2011)

Workings of A Public Money System of Open Macroeconomies - Modeling the American Monetary Act Completed-



Wage Reduction and Inflation Rate

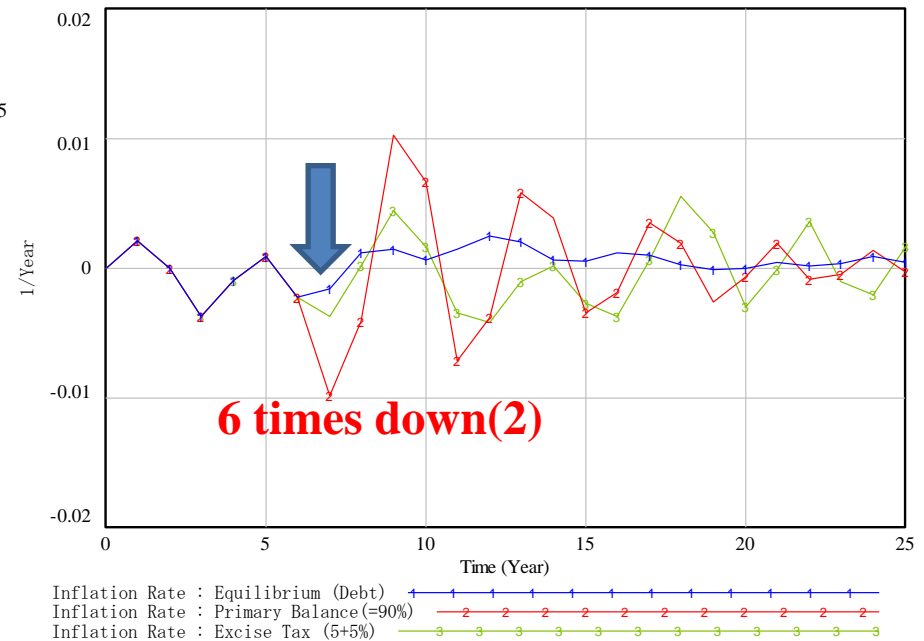
Wage Rate



Results from the 2nd Paper (2011)

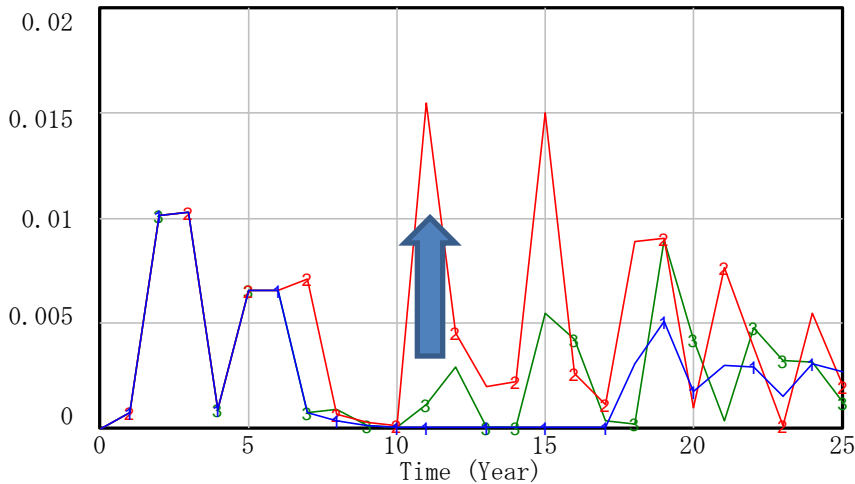
Workings of A Public Money System of Open Macroeconomies - Modeling the American Monetary Act Completed-

Inflation Rate



Foreign Recessions Contagiously Triggered

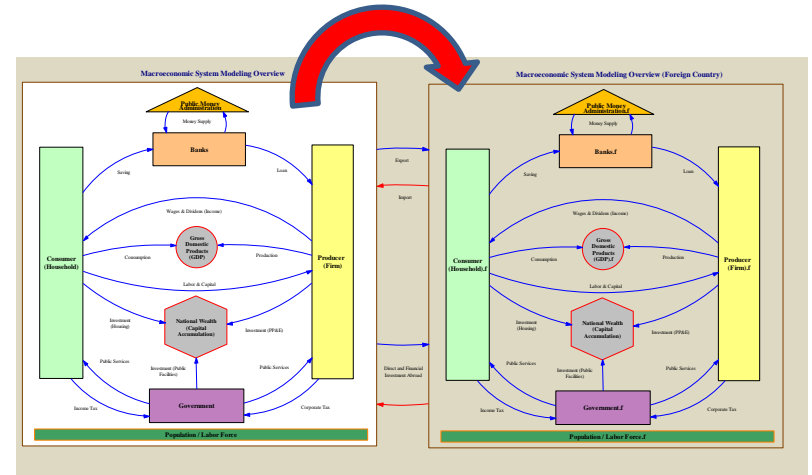
GDP Gap Ratio.f



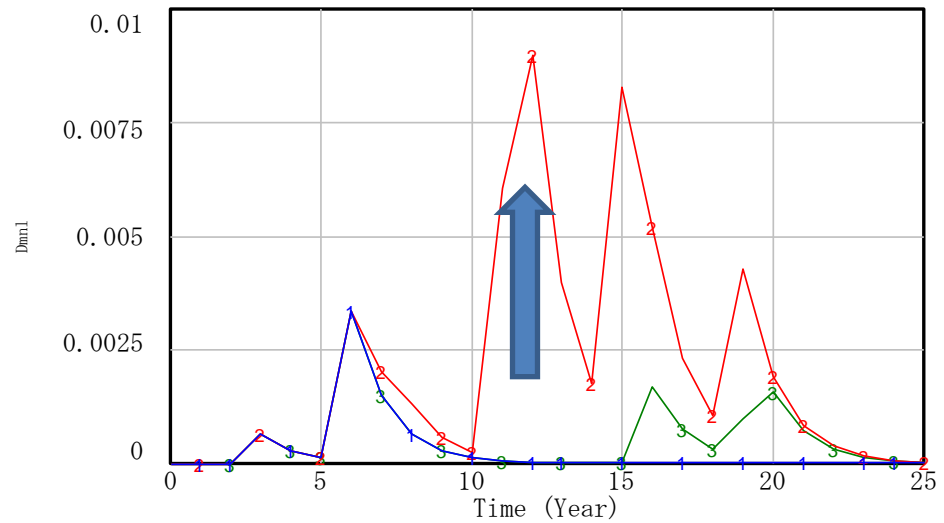
"GDP Gap Ratio.f" : Equilibrium (Debt) ————
 "GDP Gap Ratio.f" : Primary Balance (=90%) ————
 "GDP Gap Ratio.f" : Excise Tax (5+5%) ————

Results from the 2nd Paper (2011)

Workings of A Public Money System of Open Macroeconomies - Modeling the American Monetary Act Completed-



Unemployment rate.f



"Unemployment rate.f" : Equilibrium (Debt) ————
 "Unemployment rate.f" : Primary Balance (=90%) ————
 "Unemployment rate.f" : Excise Tax (5+5%) ————

1. On the Liquidation of Government Debt under A Debt-free Money System:
Modeling the American Monetary Act, Seoul, Korea, 2010.
2. Workings of A Public Money System of Open Macroeconomies:
Modeling the American Monetary Act Completed, Washington D.C., USA, 2011.
3. On the Monetary and Financial Stability under A Public Money System:
Modeling the American Monetary Act Simplified, St. Gallen, Switzerland, 2012.

Thank you for your Attention !



We can “remove the chief cause of both booms and depressions (I. Fisher)” and income inequality !

We can liquidate Debt without triggering Recession, Unemployment & Inflation !

**H.R. 2990 (Sept. 21, 2011)
“National Emergency Employment Defense Act (NEED)”**

**A Bill to the US House
Committee on Financial Services
by US Congressman
Dennis Kucinich,**