

# Workings of A Public Money System of Open Macroeconomies

- Modeling the American Monetary Act Completed-

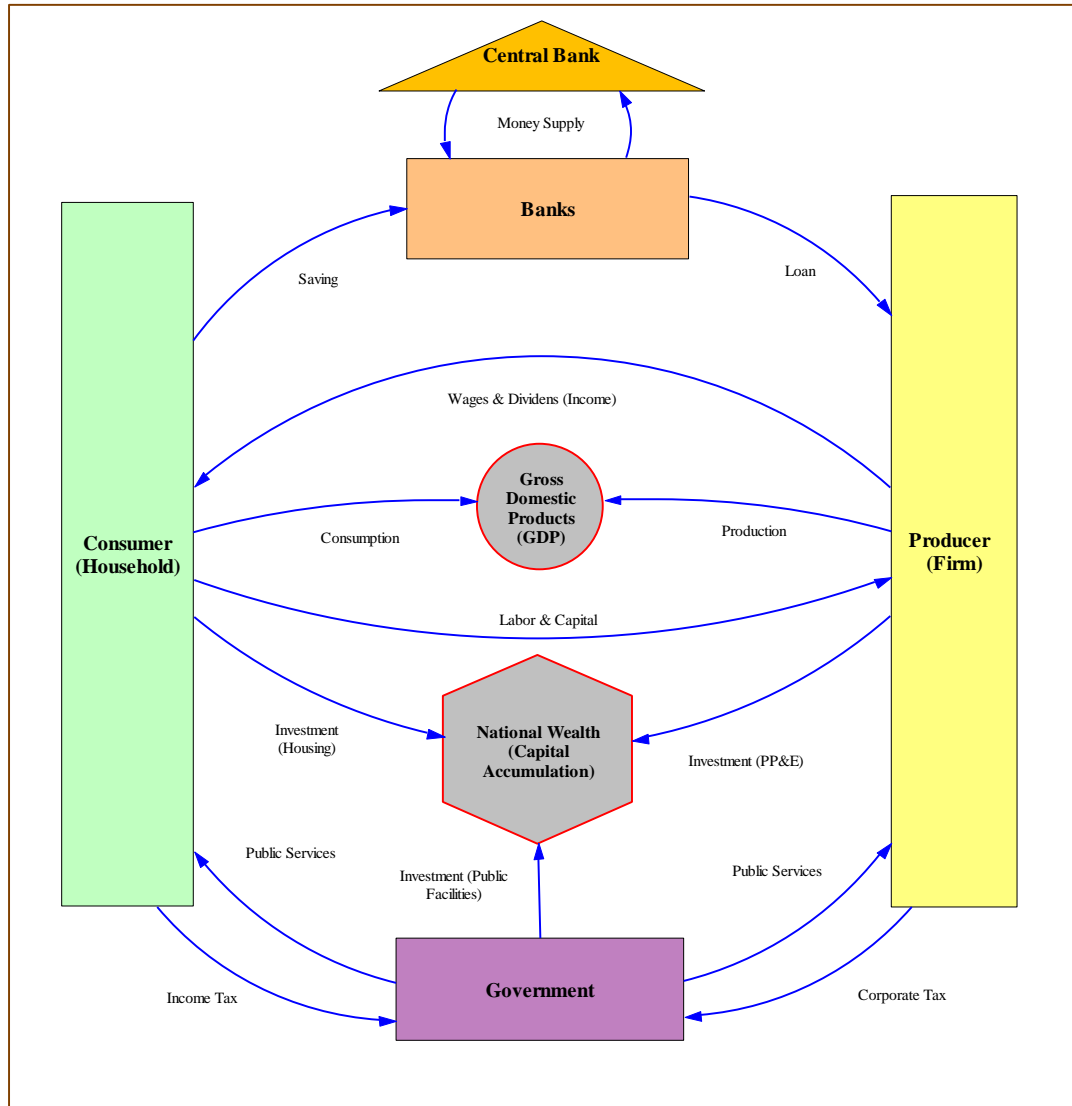
## **The 7<sup>th</sup> Annual AMI Monetary Reform Conference**

**University Center in Downtown Chicago**

**Sept. 29 – Oct. 2, 2011**

**Prof. Kaoru Yamaguchi, Ph.D.**  
Doshisha Business School  
Doshisha University, Kyoto, Japan  
E-mail: [kaoyamag@mail.doshisha.ac.jp](mailto:kaoyamag@mail.doshisha.ac.jp)

# SD Macroeconomic Modeling Series (since 2003)



On the Liquidation of  
Government Debt  
under a Debt-free  
Money System  
- Modeling the American  
Monetary Act -

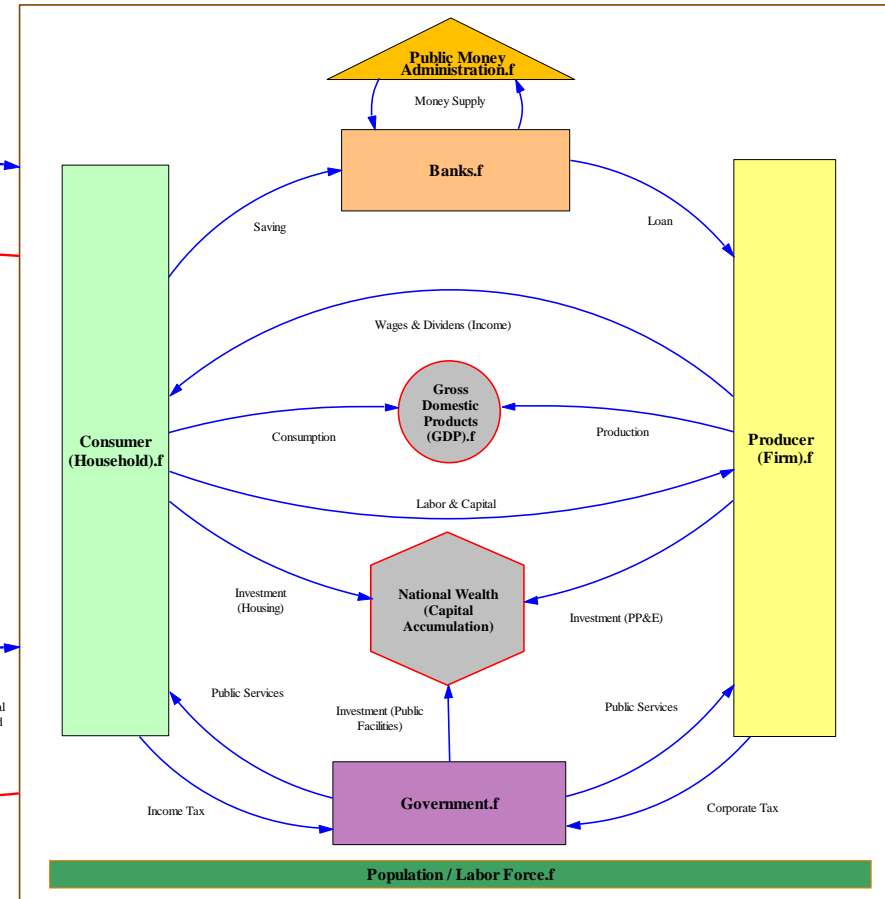
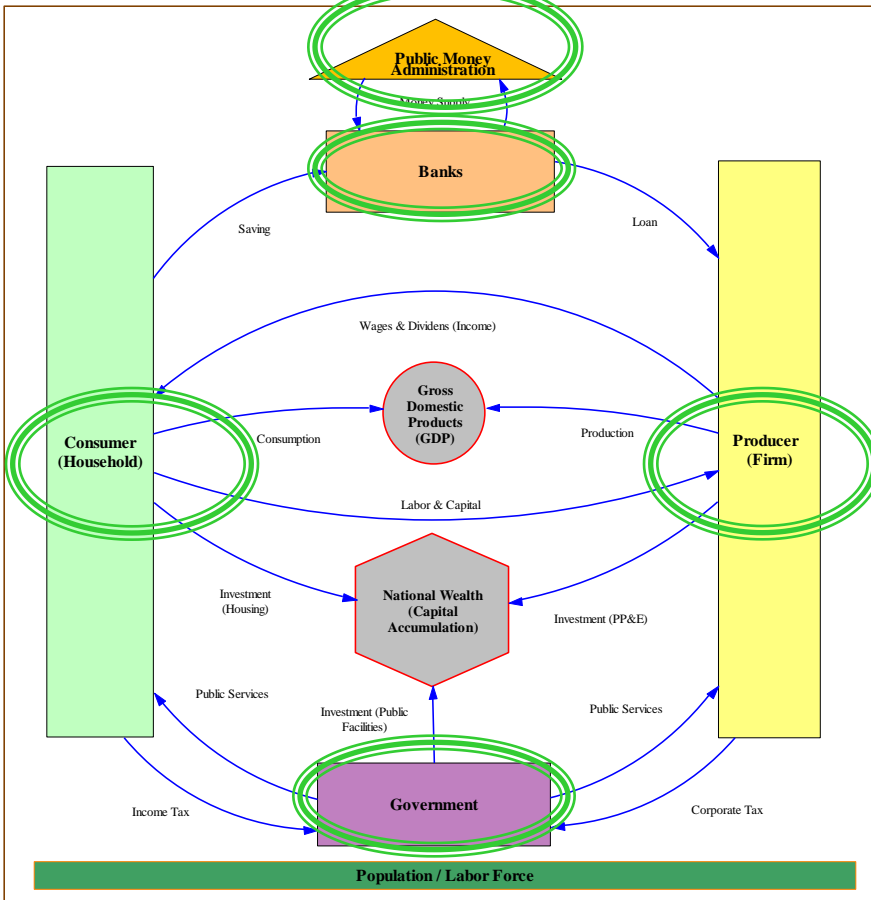
6<sup>th</sup> AMI Conf. Chicago,  
Sept. 30 - Oct. 3, 2010

*Liquidation is possible  
without  
Recession and Inflation*

# Open Macroeconomic System Overview

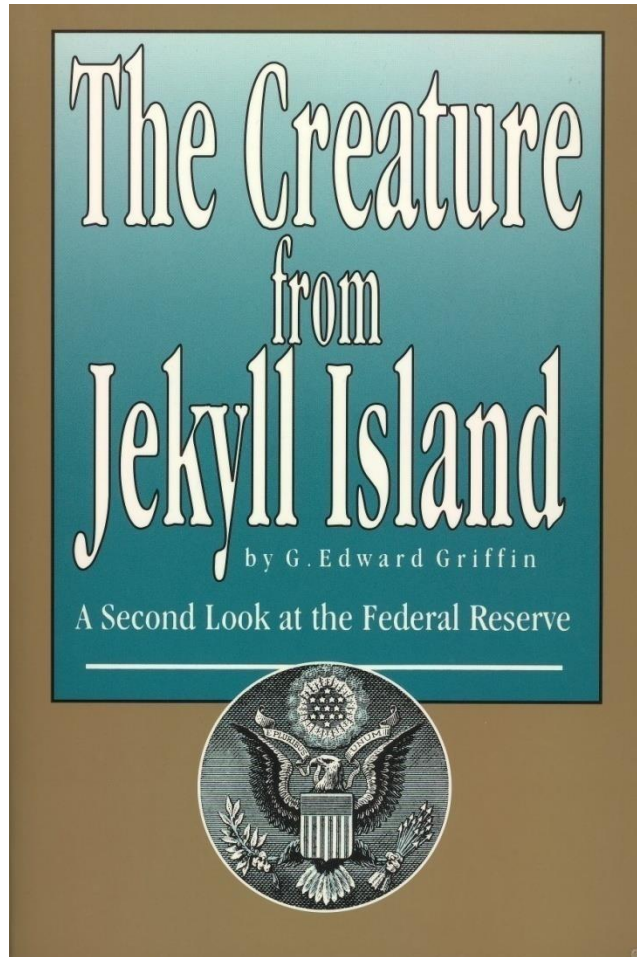
Macroeconomic System Modeling Overview

Macroeconomic System Modeling Overview (Foreign Country)

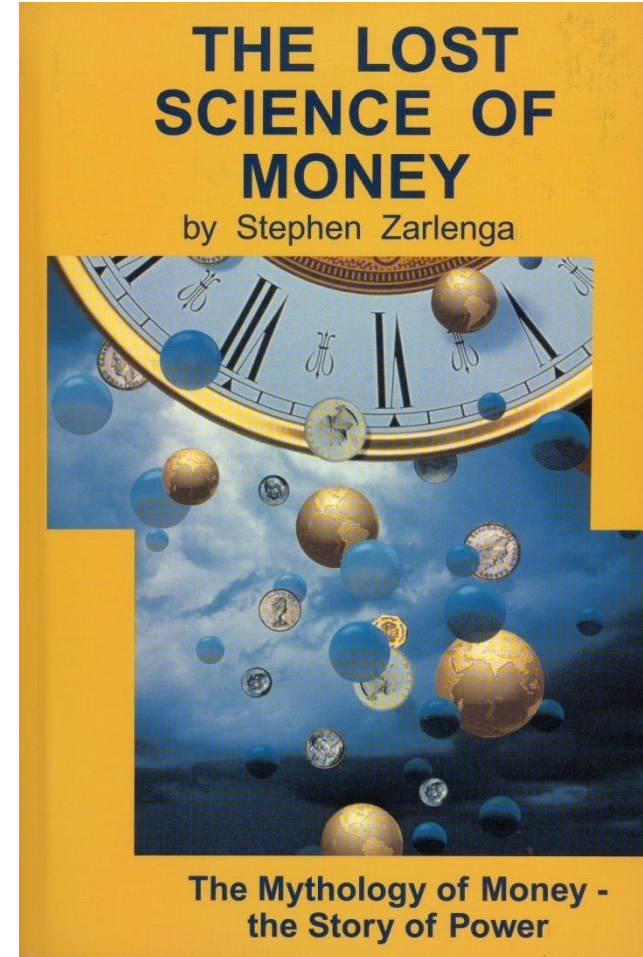


Workings of A Public Money System of Open Macroeconomies  
 - Modeling the American Monetary Act Completed -  
 Washington D.C., USA, July 24 – 28, 2011

## Books that Influenced this Research



608 pages, 4<sup>th</sup> ed. 2002



724 pages, 2002

# 1. What is Money ?

Aristotle (384 – 322 BC)

“Money exists not by nature  
but by law”

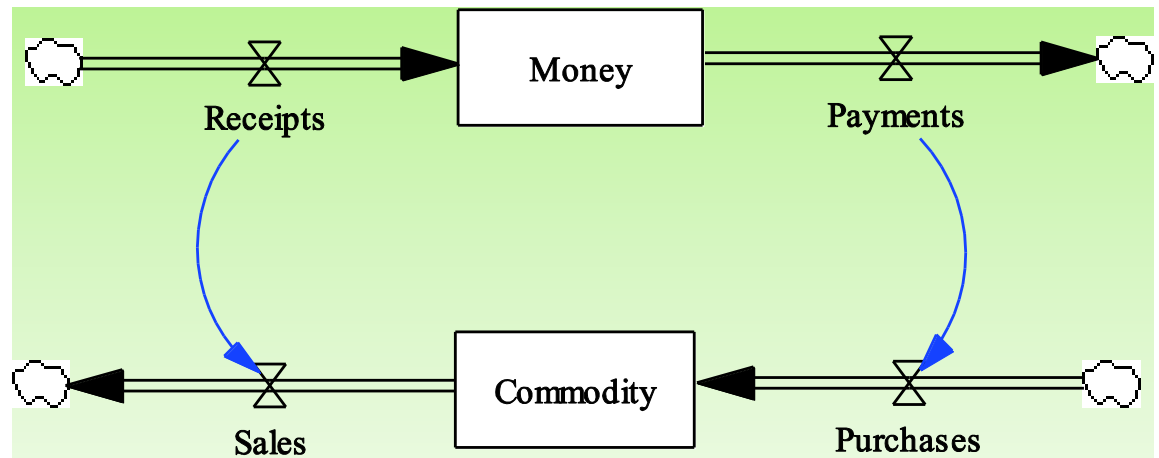
**Econ. Text Def.**  
(by nature)

- **Medium of Exchange**
- **Unit of Account**
- **Store of Value**

**MV**

=

**PT**



# Public Money (by law)

## Examples

- Metal Coins
- Continental Currency bills of credit (1690)
- Greenbacks (1862)  
-----
- Dajyokan-satsu (1868)  
(Japan)



	Public Money
Non-metal Commodities	Shell, Cloth (Silk) Woods, Stones, etc
Metal Coinage	Non-precious Metals Copper, Silver, Gold
Paper Notes	Sovereign Notes Government Notes
Intangible Numbers	
Digits	Electronic Substitutes

Money 貨幣 = 貨 (Shell) + 幣 (Silk)

**Public Money Saved the Nations on the brink of their Crisis !**

# 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?

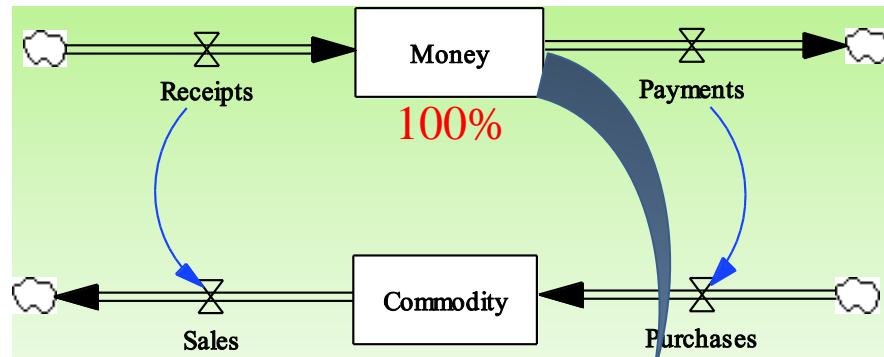
1. Bank Notes by  
Privately-Owned  
Central Bank
2. Credits Created by  
Commercial Banks  
(A Fractional Reserve  
System)

↓  
**Monetary Control**  
by (and for)  
the Bankers

# Debt Money

## Econ. Text Def.

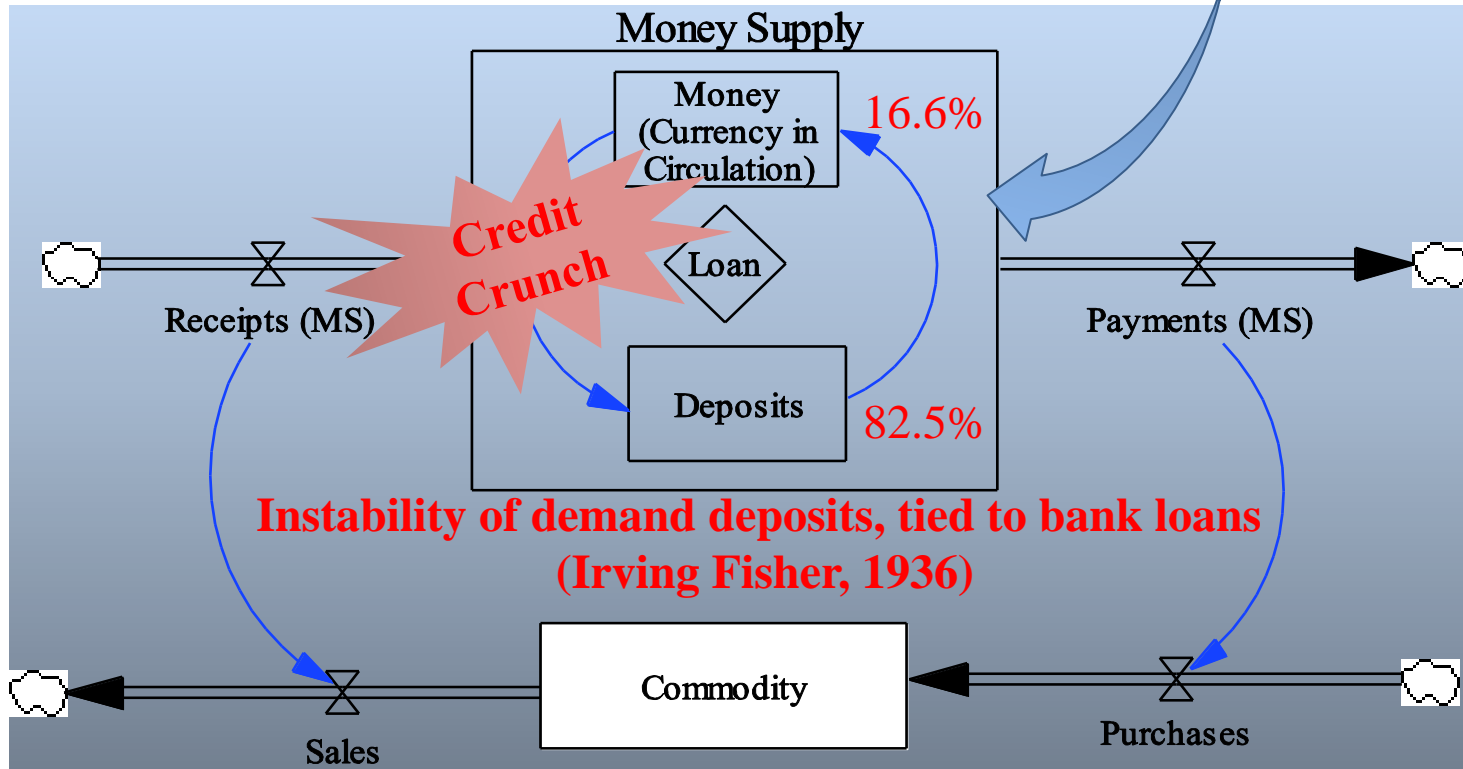
- Medium of Exchange
- Unit of Account
- Store of Value



MV

=

PT





# Public vs Debt Money (by law)

	Public Money	Debt Money
Non-metal Commodities	Shell, Cloth (Silk) Woods, Stones, etc	
Metal Coinage	Non-precious Metals Copper, Silver, Gold	
Paper Notes	Sovereign Notes Government Notes	Gold(smith) Certificates (Central) Bank Notes
Intangible Numbers		Deposits (Credits by Loan)
Digits	Electronic Substitutes	Electronic Substitutes

**This Battle to Control the Money Power** has raged for millennia over the same dividing line: will the money system be **privately** controlled by the few, to favor the few; or will it be **publicly** controlled by government, potentially for the common good.

## 2. Debt Crises As A Systemic Failure

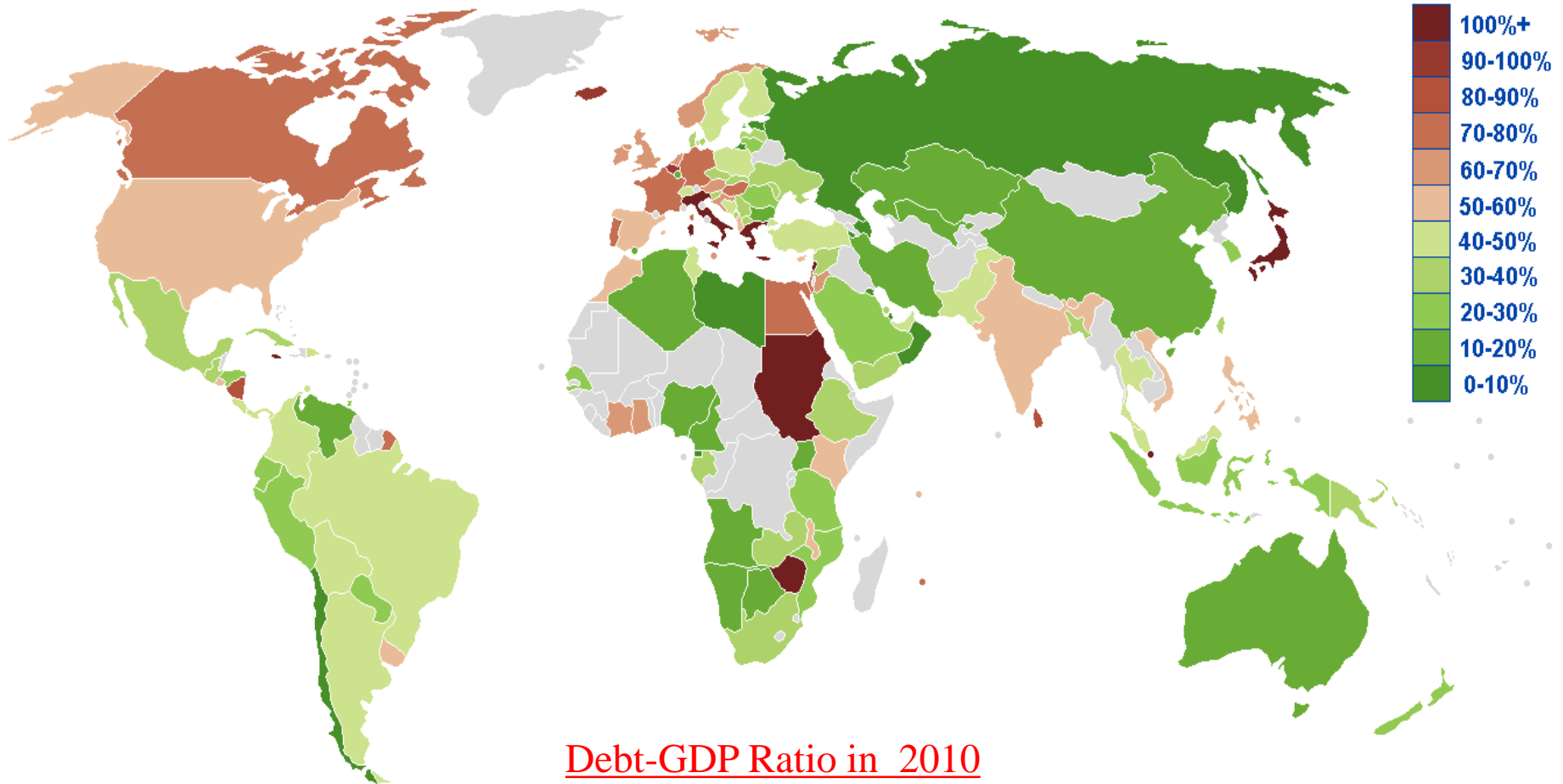
**Current Debt Money System**

**is Not Working !**

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

# File:Public debt percent GDP world map.PNG

From Wikipedia, the free encyclopedia



## Debt-GDP Ratio in 2010

33 OECD Countries 66.7%

World Average 58.3%

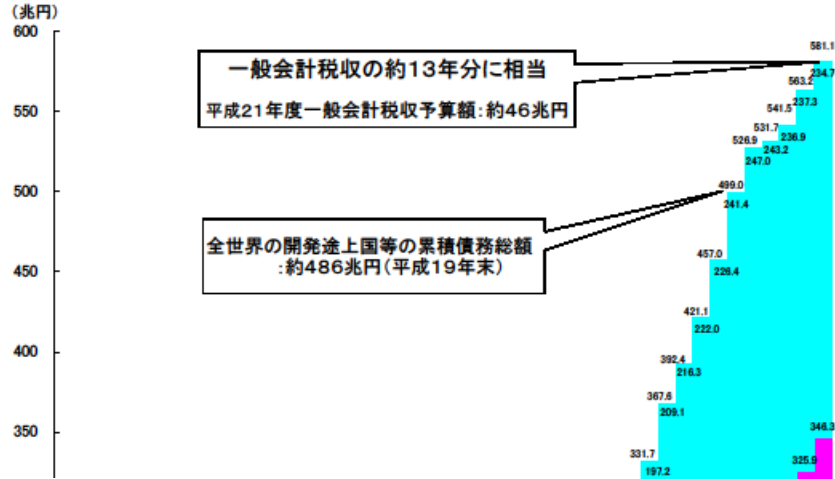
## Public Debt-GDP Ratio(%) of OECD Countries in 2010

Country	Ratio(%)	Country	Ratio(%)
Japan	196.4	Israel	77.3
Greece	144.0	Germany	74.8
Iceland	123.8	Hungary	72.1
Italy	118.1	Austria	68.6
Belgium	102.5	United Kingdom	68.1
Ireland	98.5	Netherlands	64.6
United States	96.4	Spain	63.4
France	83.5	Poland	50.5
Portugal	83.2	<b>OECD</b>	<b>66.7</b>
Canada	82.9	<b>World</b>	<b>58.3</b>

**18 Countries out of 33 OECD countries > 50% !**

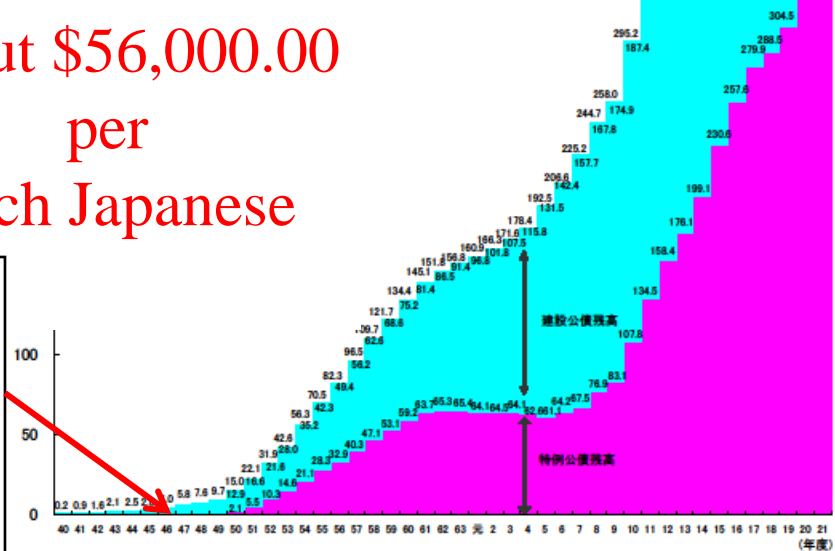
# Debt Crisis in Japan !

公債残高の累増 (平成21年度政府案)



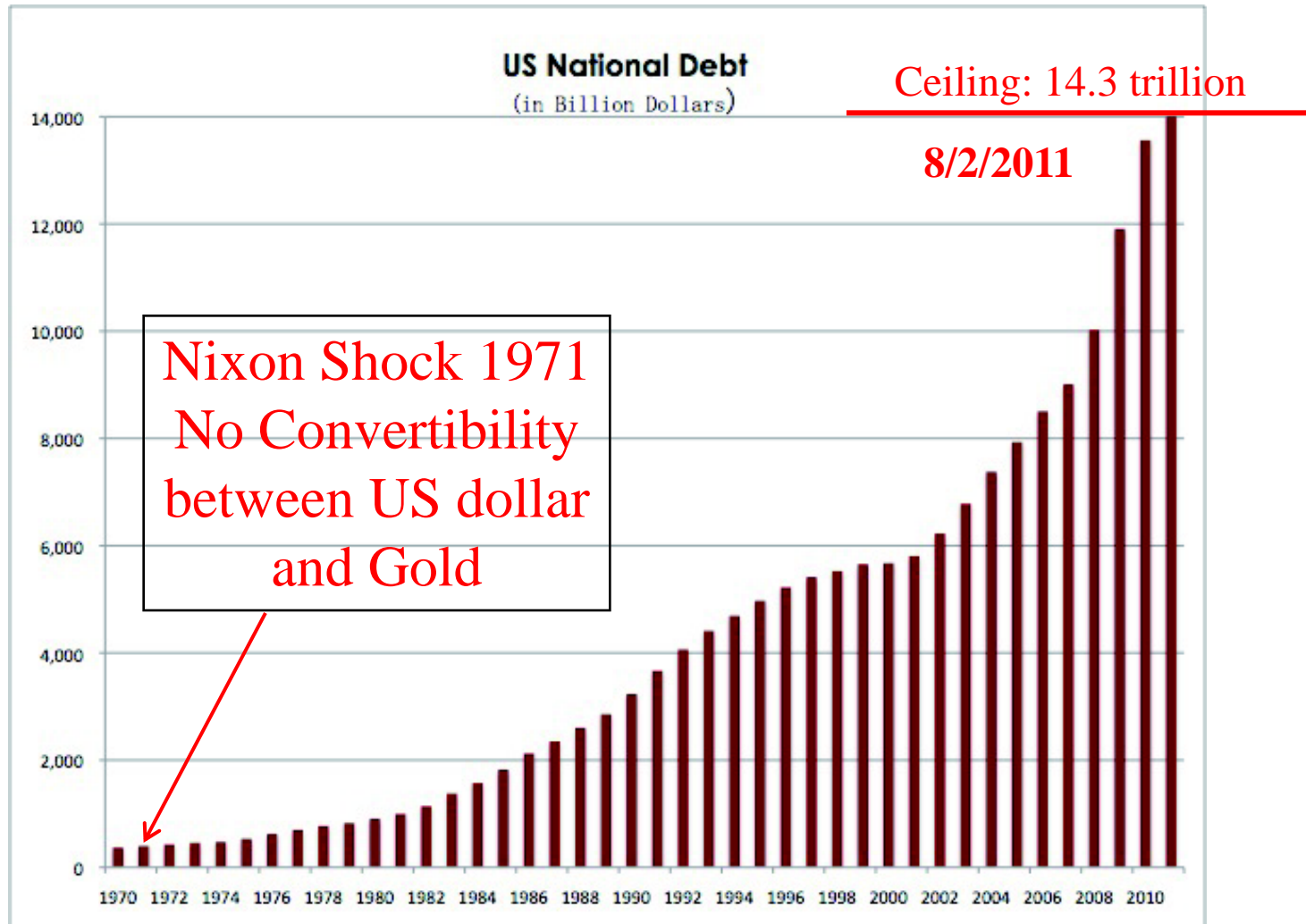
About \$56,000.00  
per  
each Japanese

Nixon Shock 1971  
No Convertibility  
between US dollar  
and Gold



(注)1. 公債残高は各年度の3月末現在額。ただし、平成20、21年度は見込み。  
2. 特別公債残高は、国鉄長期債務、国有林野累積債務等の一般会計承継による借換国債を含む。  
3. 平成20、21年度の翌年度借換のための前倒償還額を除いた見込額はそれぞれ、543兆円程度、569兆円程度。

# Debt Crisis in US !

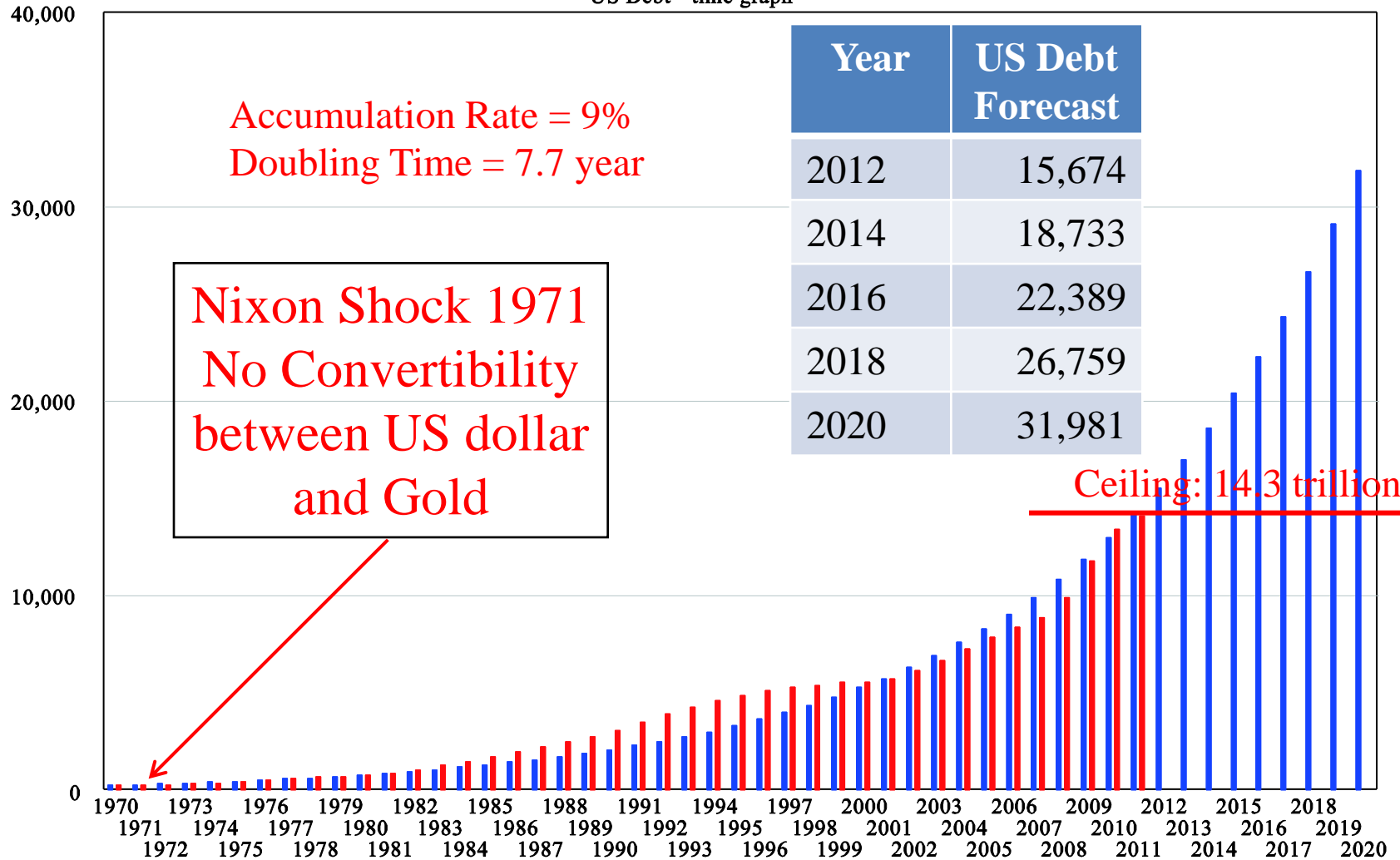


# US National Debt and its Forecast

## 1970 - 2020

Forecasted Debt  
US National Debt

US Debt - time graph

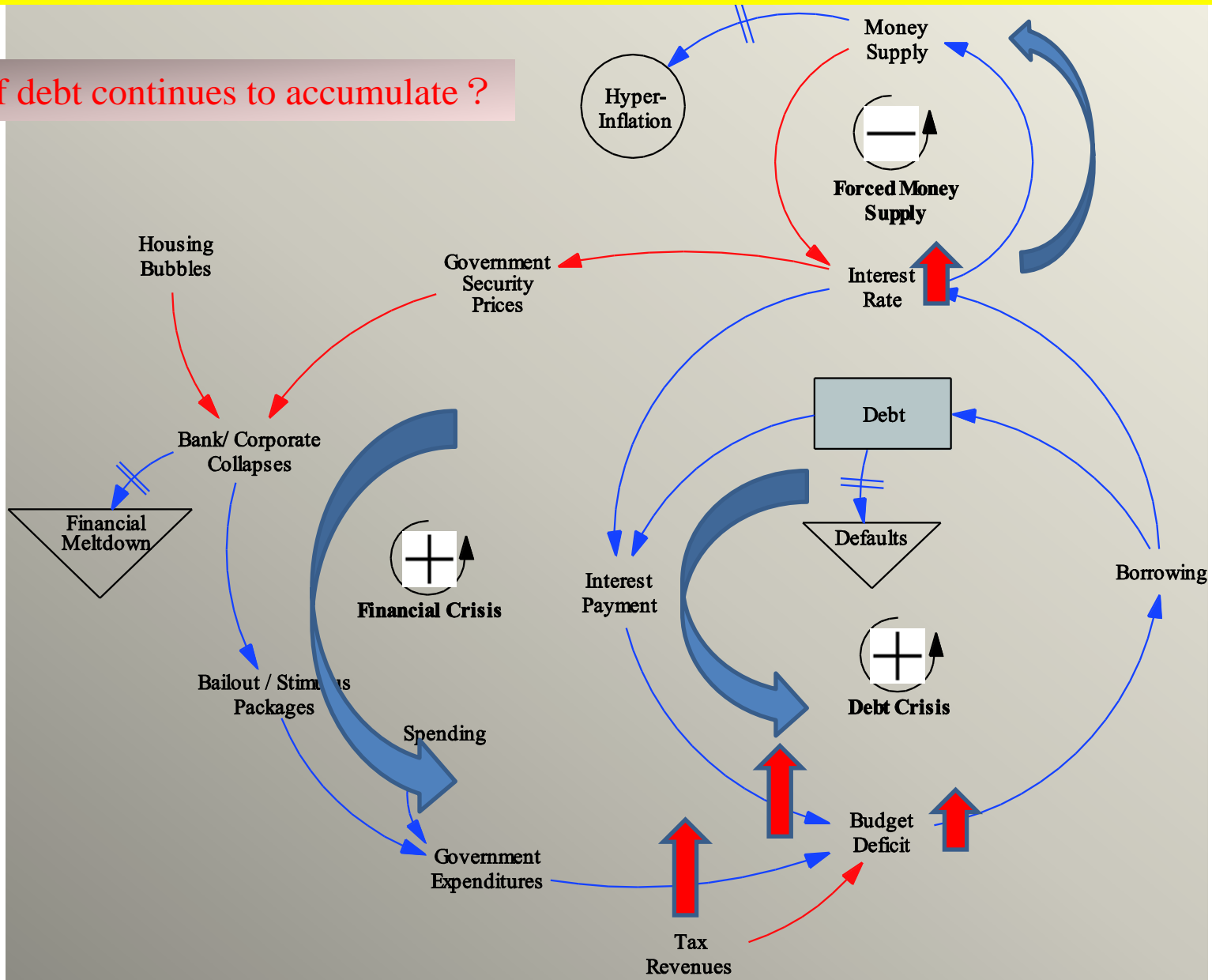






# A Systemic Failure of Debt Money: Impasses of Defaults, Financial Meltdown and Hyper-Inflation

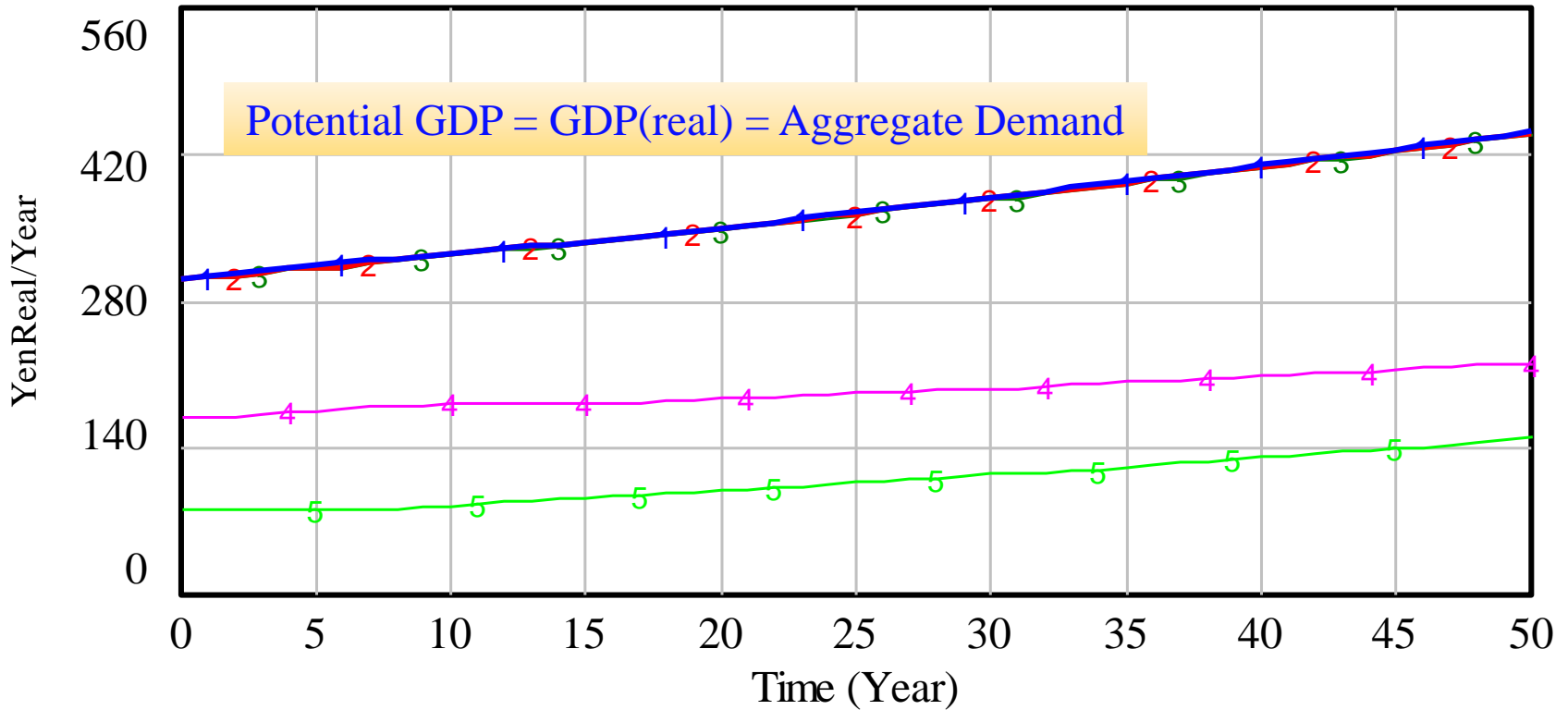
What if debt continues to accumulate ?



3. Solutions of Debt Crisis  
under  
A Debt Money System  
of Open Macroeconomies

# Mostly Equilibria in the Real Sector

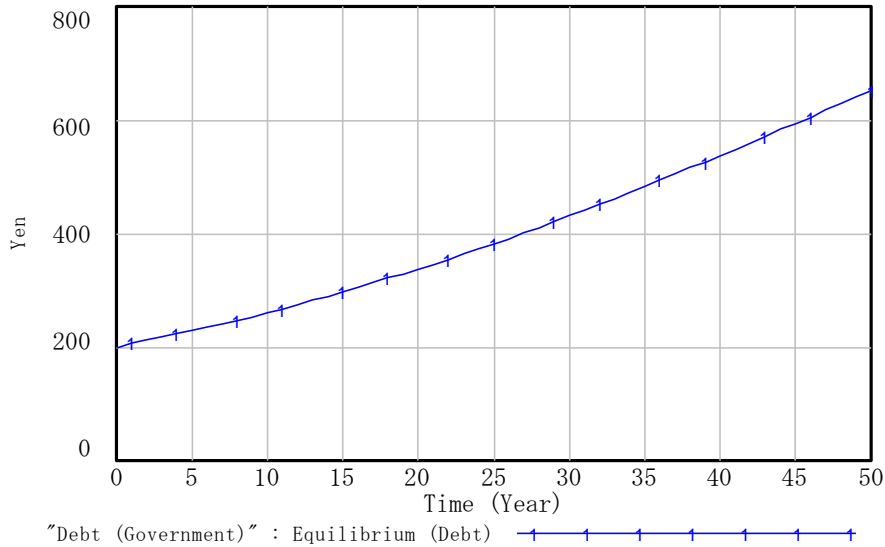
## Potential GDP, GDP and Aggregate Demand



- Potential GDP : Equilibrium (Debt) — 1 —
- "GDP (real)" : Equilibrium (Debt) — 2 —
- "Aggregate Demand (real)" : Equilibrium (Debt) — 3 —
- "Consumption (real)" : Equilibrium (Debt) — 4 —
- "Investment (real)" : Equilibrium (Debt) — 5 —

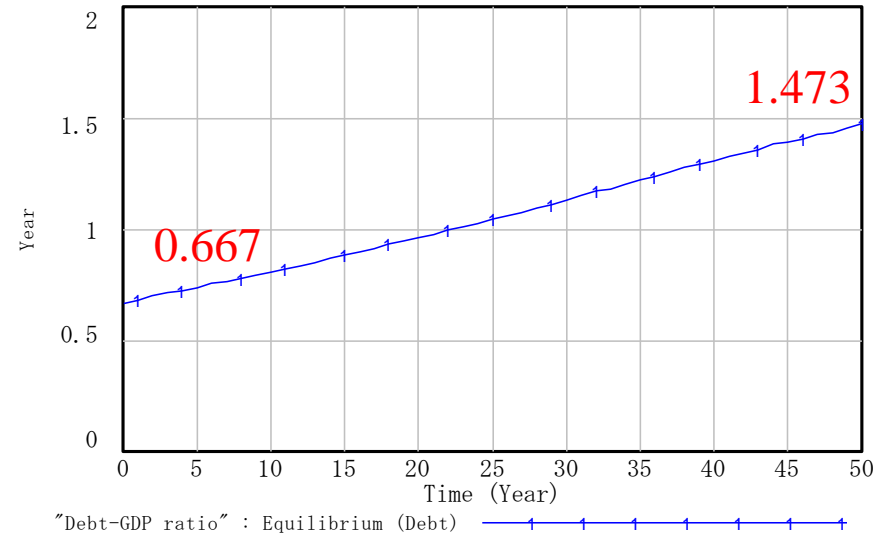
# Government Debt is **Build** in the Debt Money System

Debt (Government)

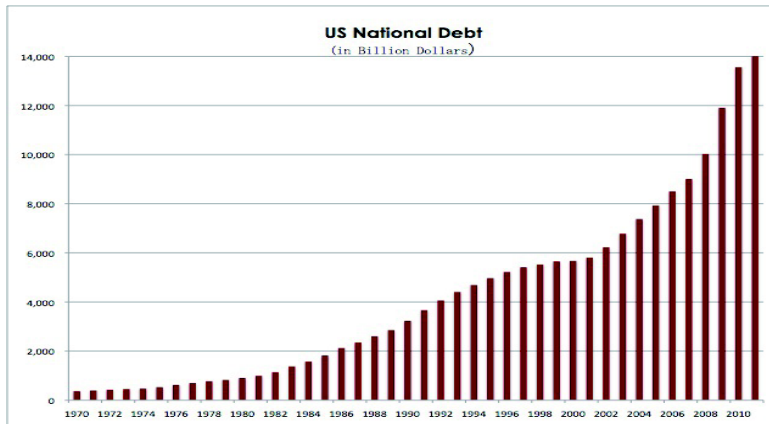


**Built-in Debt  
For Growing Economy  
By Keynesian Policies**

Debt-GDP ratio



US National Debt  
(in Billion Dollars)



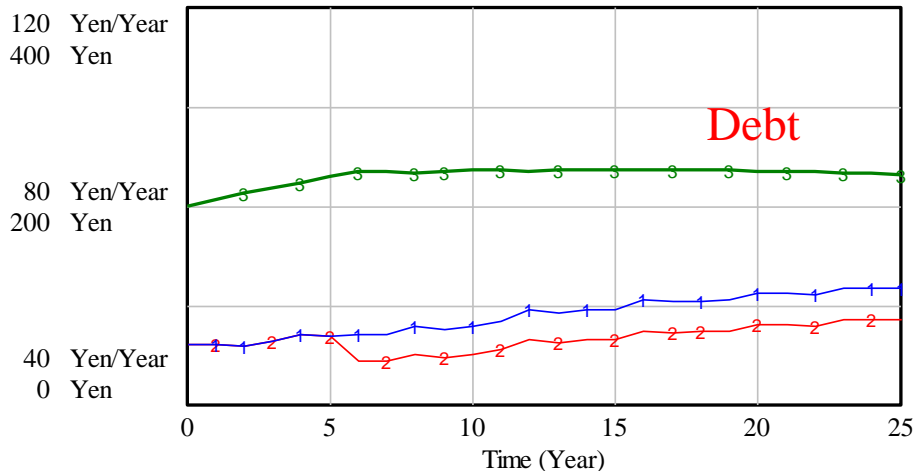
# Liquidation Policies of Government Debt under A Debt Money System

Spend Less  
or  
Tax More

## Policy A: Spend Less

10% Spending Less at t=6 (line 2)  
(Primary Balance Ratio of 90%)

Government Budget and Debt

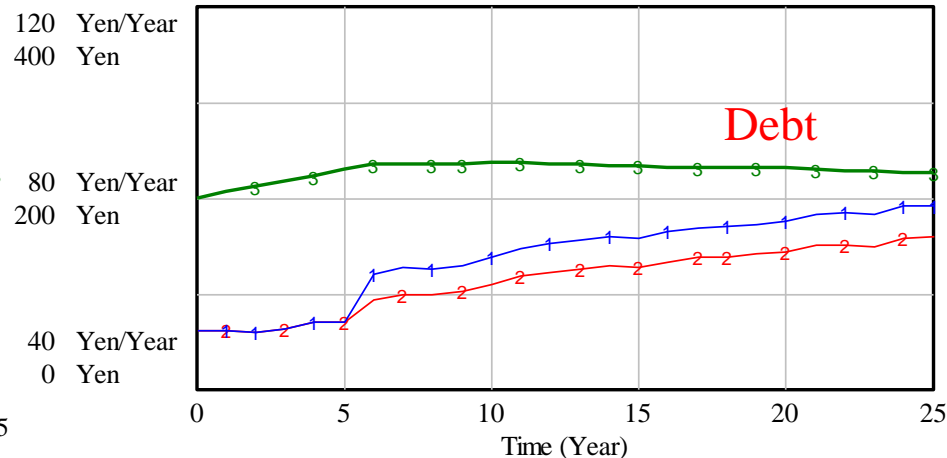


Tax Revenues : Primary Balance(=90%) ———— Yen/Year  
 Government Expenditure : Primary Balance(=90%) ———— Yen/Year  
 "Debt (Government)" : Primary Balance(=90%) ———— Yen

## Policy B: Tax More

Excise Tax More (5%+5%) (line 1)  
and 8.5% Spending Less at t=6 (line 2)

Government Budget and Debt



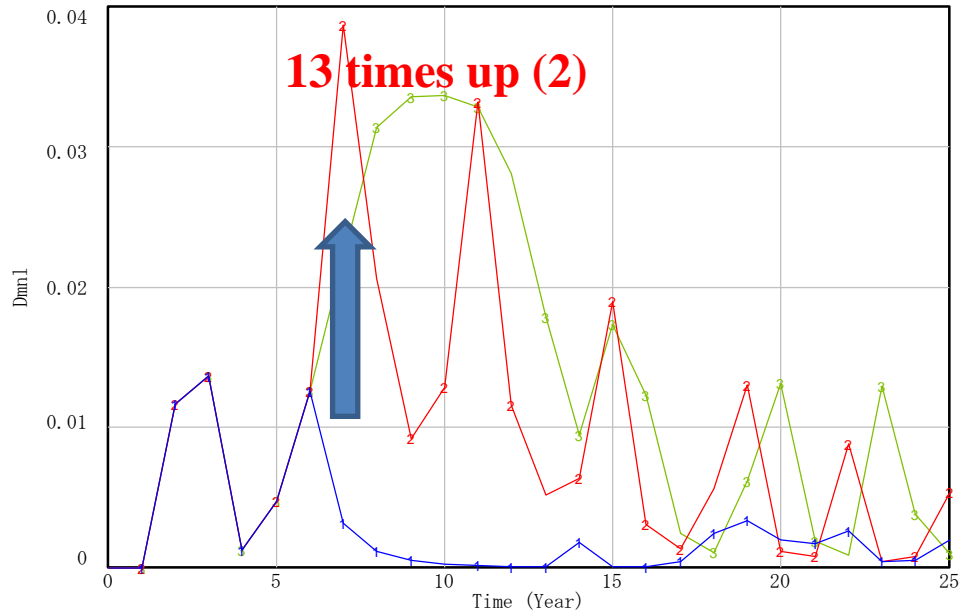
Tax Revenues : Excise Tax (5+5%) ———— Yen/Year  
 Government Expenditure : Excise Tax (5+5%) ———— Yen/Year  
 "Debt (Government)" : Excise Tax (5+5%) ———— Yen





# GDP Gap Ratio and Unemployment Rate

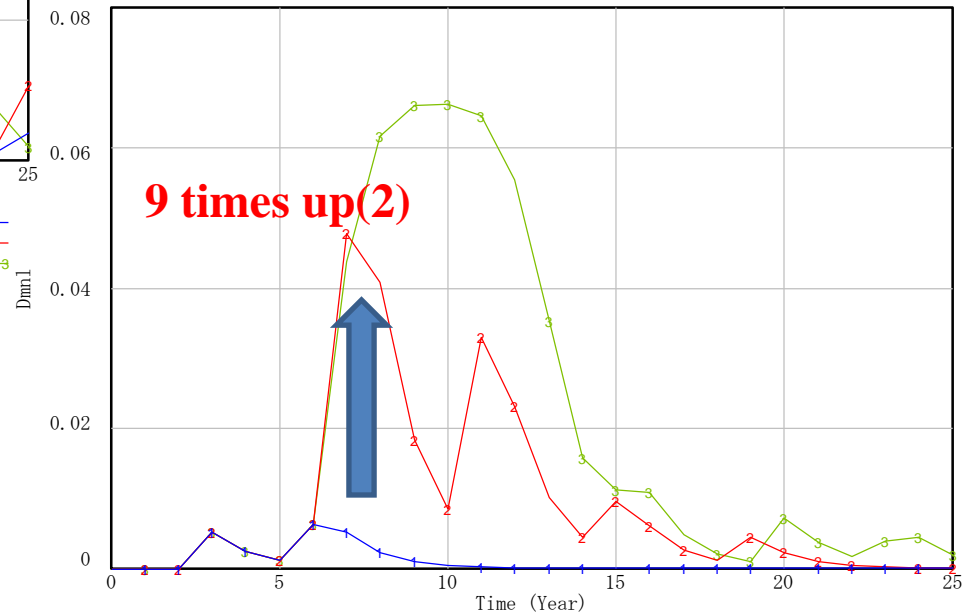
GDP Gap Ratio



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

$$\text{GDP Gap Ratio} = \frac{\text{Potential GDP} - \text{GDP}(\text{real})}{\text{Potential GDP}}$$

Unemployment rate



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









# A Systemic Failure of Debt Money

Quantity Theory of Money:  $M V = P T$ .

Growing  
Economy

Debt Money failed to be provided  
to meet the growing economy!

- Gold Standard Failed (1930s)
- Gold-Dollar Standard Failed (1971)

$GDP \uparrow \rightarrow M \uparrow \downarrow$

- Dollar Standard Collapsing (2010s?)

$GDP \uparrow \rightarrow M \uparrow \downarrow \rightarrow Debt \uparrow \downarrow$

Debt Money  
Supply

## 4. A Public Money System

- American Monetary Act -

# 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**

# Chicago Plan

Irving  
Fisher

**100% Money  
and the  
Public Debt**

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, Aldephi Company, NY, 1936

# **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**

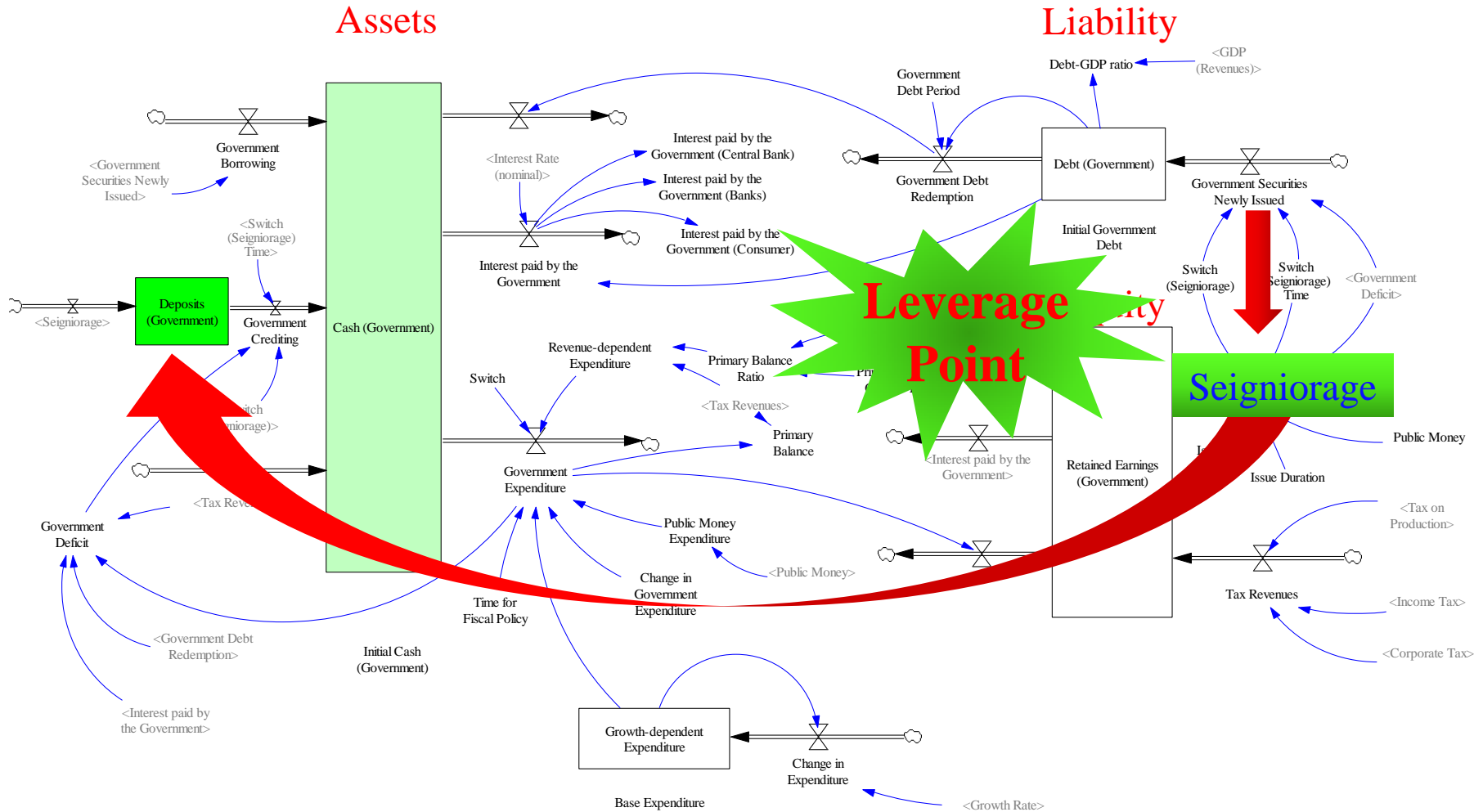
**A Public Money System  
- the American Monetary Act -**

- 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**



# A Public Money System

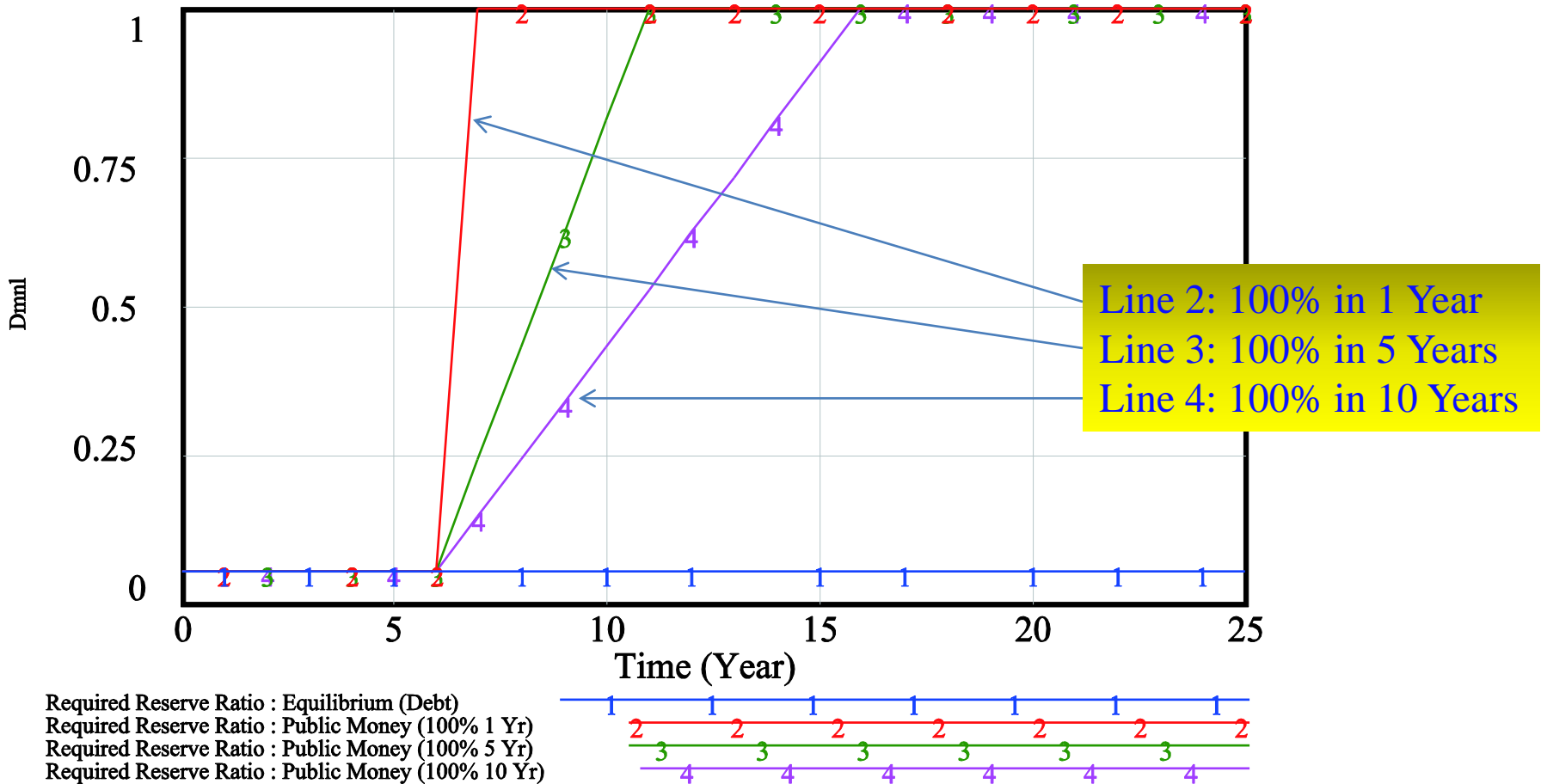
## 1. Government Issues Money



# A Public Money System

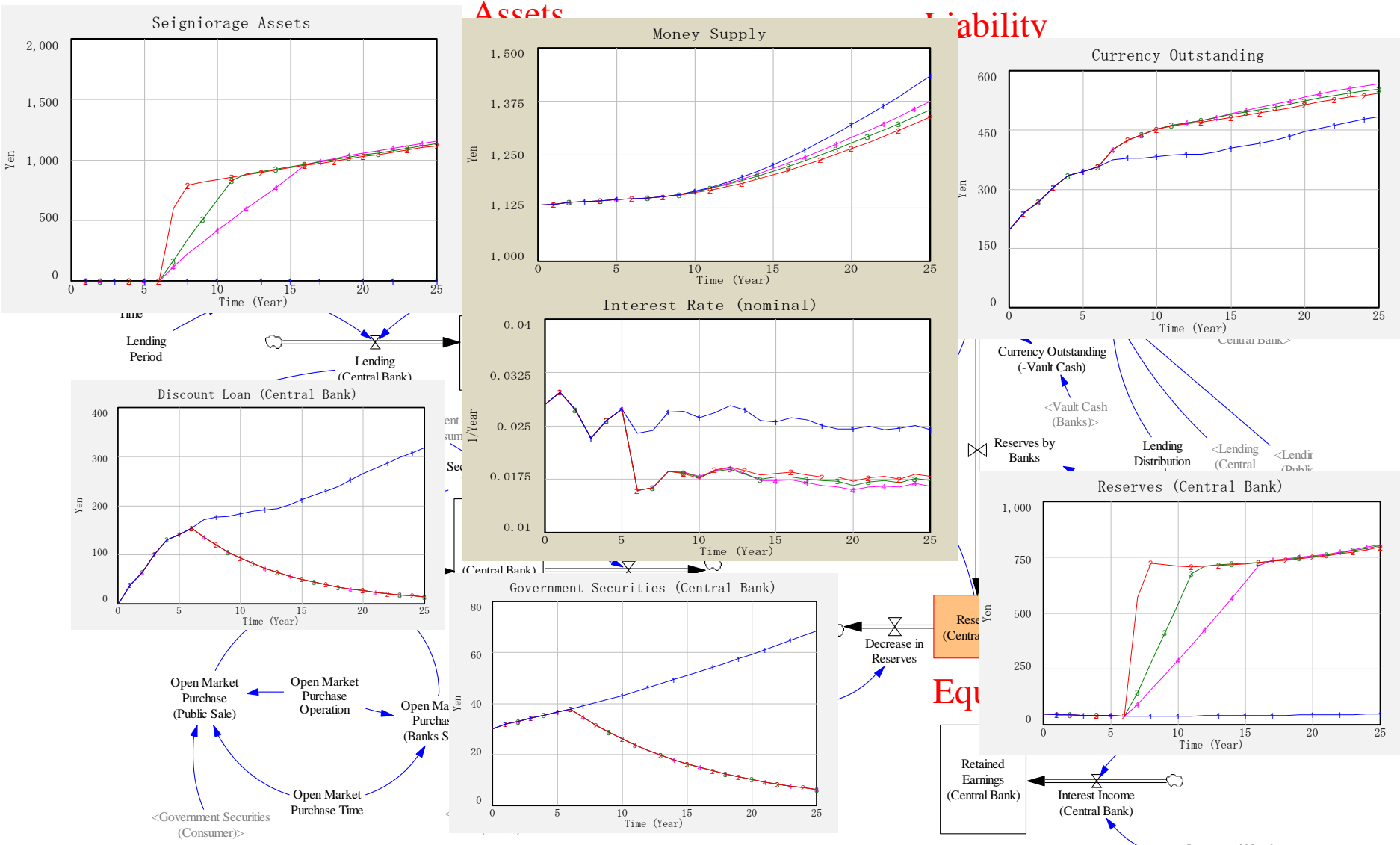
## 2. 100% Required Reserve Ratio

Required Reserve Ratio



# A Public Money System

## - Transactions of the Public Money Administration -

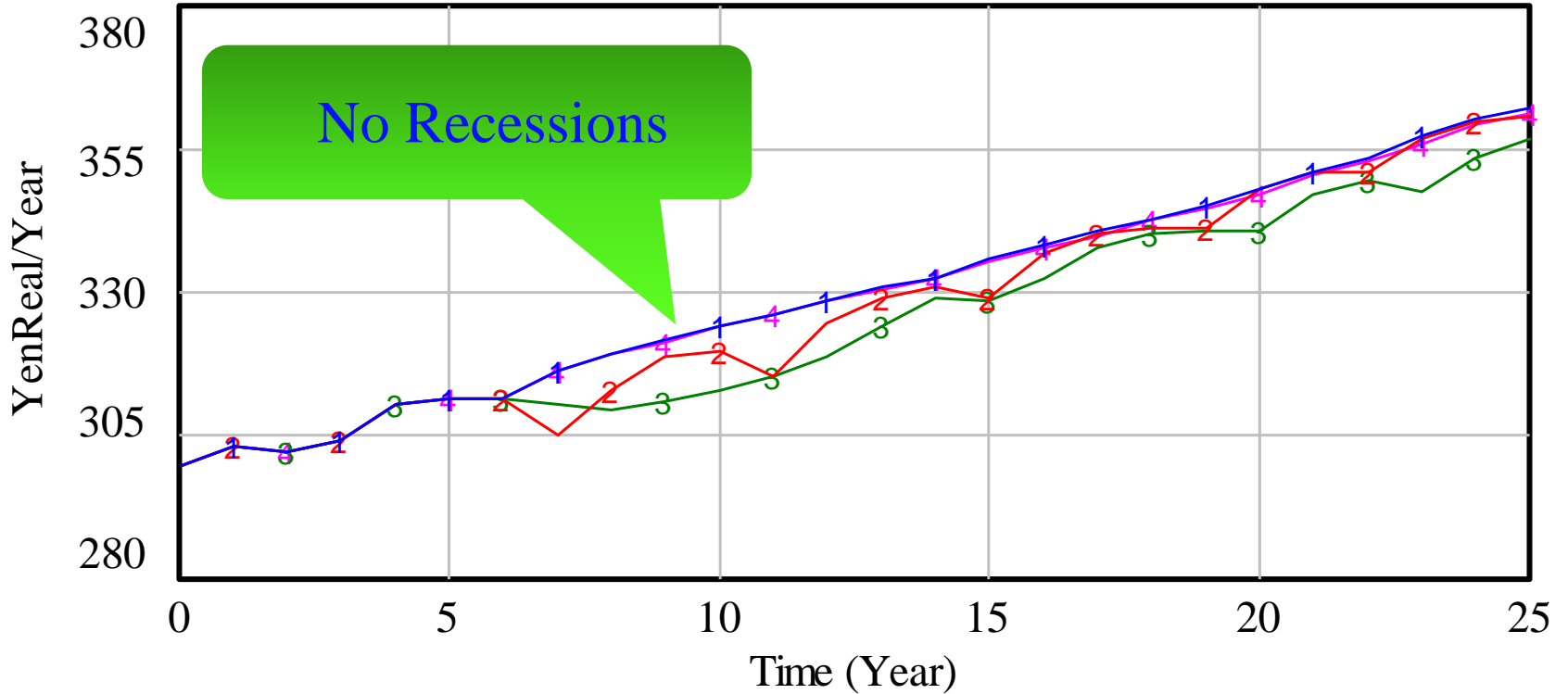


5. Solutions of Debt Crisis  
under  
A Public Money System  
of Open Macroeconomies



# No Recessions Triggered (line 4)

GDP (real)



- "GDP (real)" : Equilibrium (Debt) — 1 — 1 — 1 — 1 — 1 — 1 — 1 — 1
- "GDP (real)" : Primary Balance(=90%) — 2 — 2 — 2 — 2 — 2 — 2 — 2 — 2
- "GDP (real)" : Excise Tax (5+5%) — 3 — 3 — 3 — 3 — 3 — 3 — 3 — 3
- "GDP (real)" : Public Money (100% 5 Yr) — 4 — 4 — 4 — 4 — 4 — 4 — 4 — 4

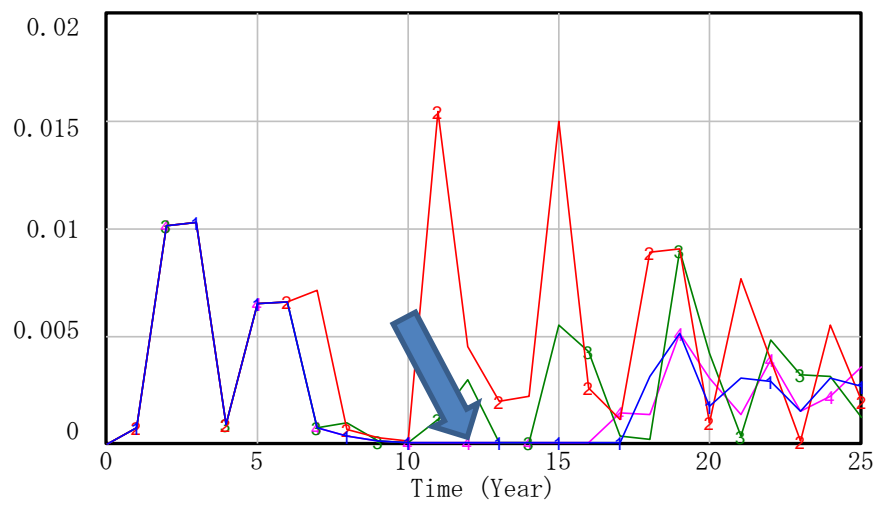




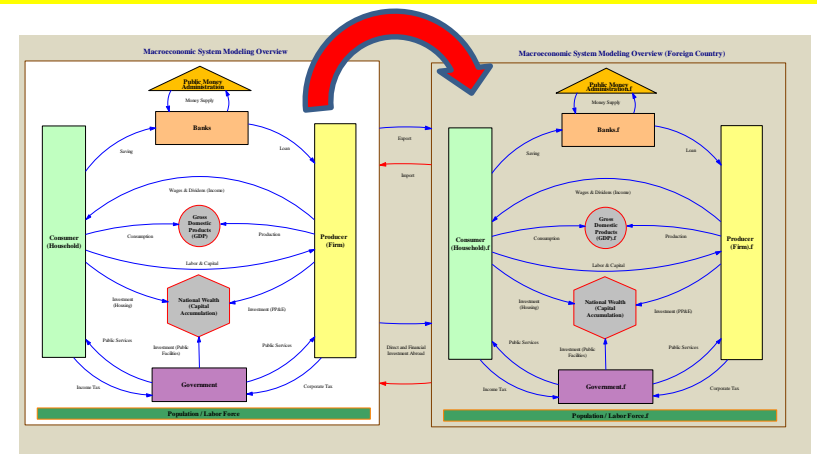


# Foreign Recessions are Not Triggered (lines 4)

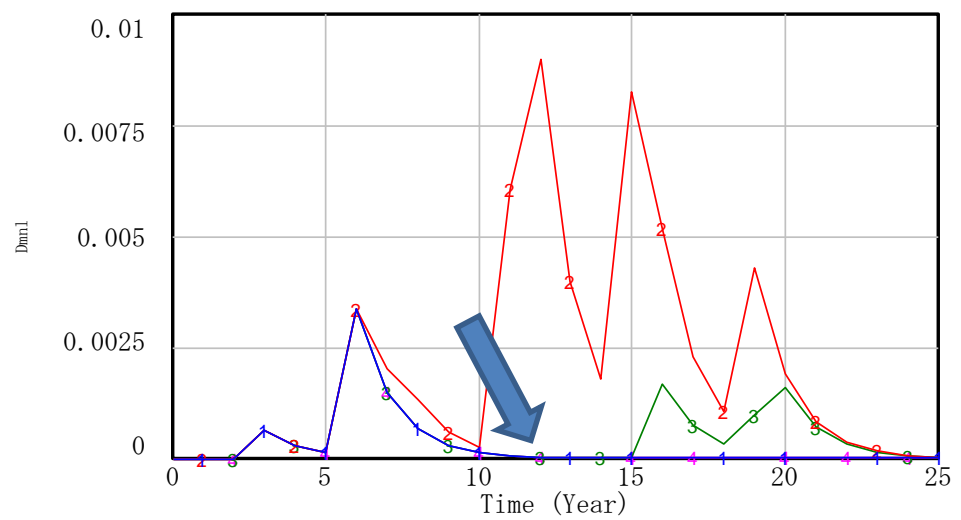
GDP Gap Ratio.f



"GDP Gap Ratio.f" : Equilibrium (Debt) 1  
 "GDP Gap Ratio.f" : Primary Balance (=90%) 2  
 "GDP Gap Ratio.f" : Excise Tax (5+5%) 3  
 "GDP Gap Ratio.f" : Public Money (100% 5 Yr) 4



Unemployment rate.f



"Unemployment rate.f" : Equilibrium (Debt) 1  
 "Unemployment rate.f" : Primary Balance (=90%) 2  
 "Unemployment rate.f" : Excise Tax (5+5%) 3  
 "Unemployment rate.f" : Public Money (100% 5 Yr) 4

6. Public Money Policies  
vs  
Keynesian Policies

# Criticism of A Public Money System:

## Inflation !!!

Can we trust the Government ?

May be No: Political business cycle proves it.

Nuclear Meltdown (3/11/2011) was hidden for 3 months!

Then

Can we trust privately-owned Central Bank ?

No: History of economic crises proves it.

So, what can we trust?

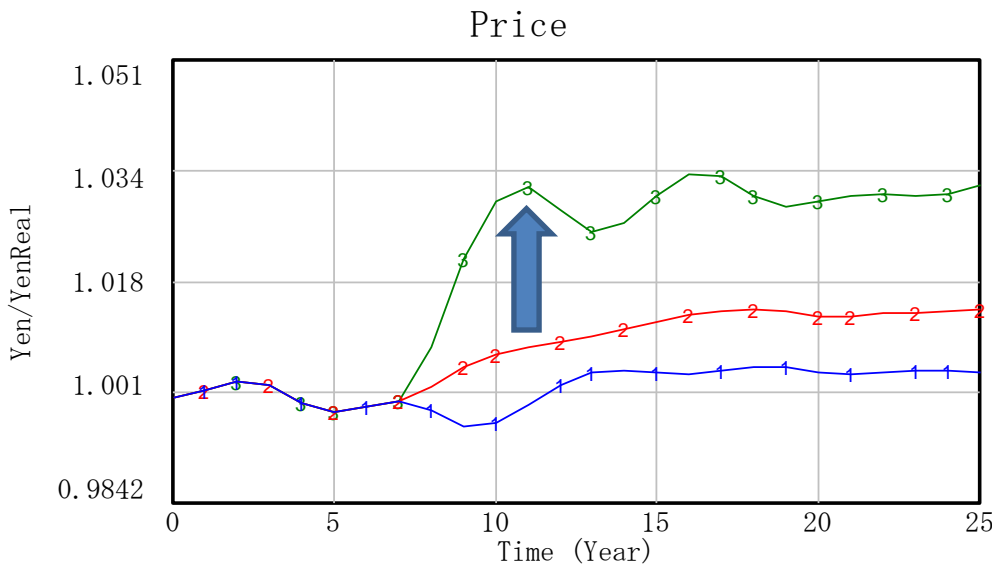
Gov't Policies based on SD models  
(full disclosure of monetary information)



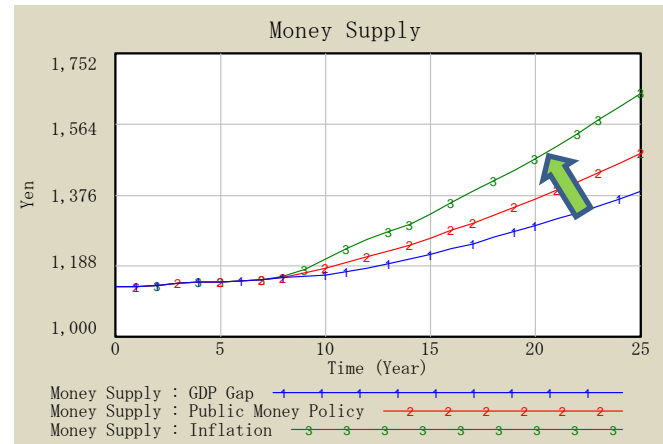




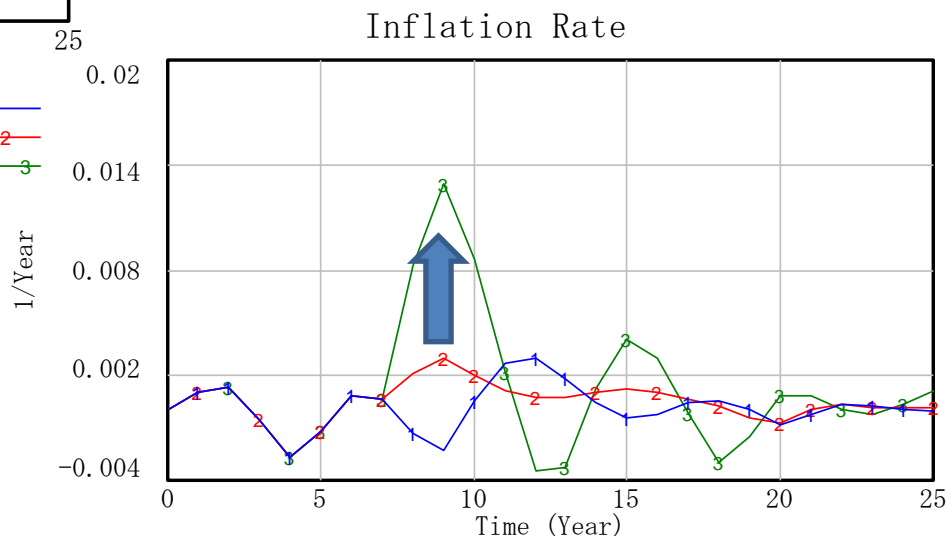
## (2) Inflation by **Mismanaging Money Supply** (Price and Inflation Rate: lines 3)



Price : GDP Gap ————  
 Price : Public Money Policy ————  
 Price : Inflation ————



Money Supply : GDP Gap ————  
 Money Supply : Public Money Policy ————  
 Money Supply : Inflation ————



Inflation Rate : GDP Gap ————  
 Inflation Rate : Public Money Policy ————  
 Inflation Rate : Inflation ————

Increase money mistakenly  
 by the amount of 5→15  
 for 20→25 years  
 from t=7

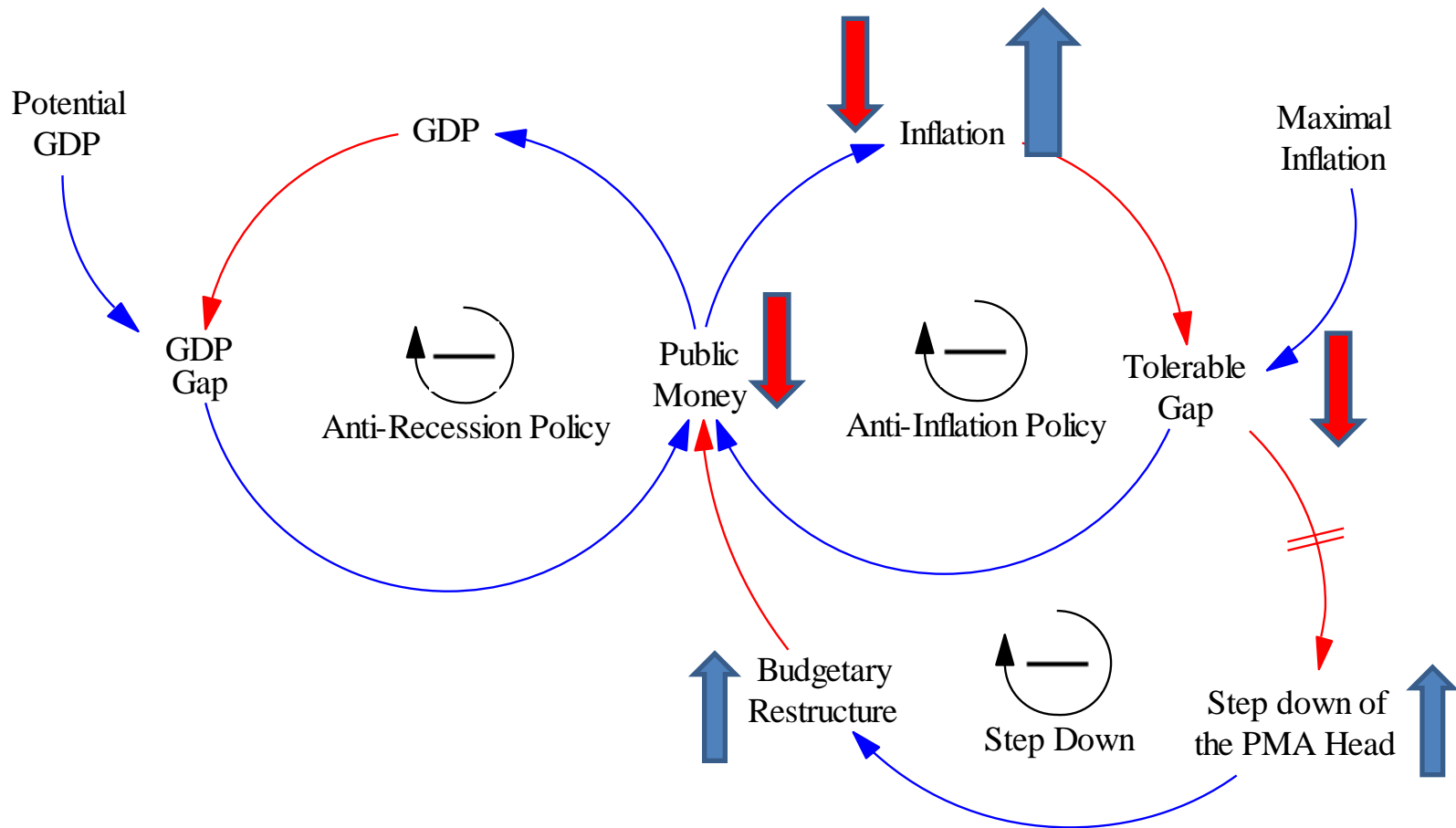








### (3) Public Money Policy: Step Down (against Intolerable Inflation)

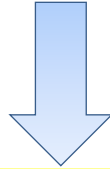


# Conclusion

**From a viewpoint of system design,  
a public money system  
of open macroeconomies  
is worth being implemented  
to avoid  
government debt,  
financial crisis  
and  
environmental destruction**

# American Monetary Act (Chicago Plan)

Now being implemented as



- **H.R. 6550**  
“National Emergency Employment Defense Act (NEED)”  
A Bill to the US House Committee on Financial Services  
by US Congressman Dannis Kucinichi, Dec. 17, 2010.  
**(Re-introduced on Sept. 21, 2011 as HR 2990)**
- \* “Towards A Twenty-First Century Banking  
And Monetary System”  
submitted to the Independent Commission on Banking, U.K.  
by PositiveMoney, the new economics foundation,  
and Prof. Richard Werner



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

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

(Debt Ceiling due 8/2/2011)



**H.R. 6550 (Dec. 17, 2010)**  
**“National Emergency Employment  
Defense Act (NEED)”**  
**A Bill to the US House Committee  
on Financial Services**  
**by US Congressman Dennis Kucinich,**

**Thank You For Your Attention!**